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HOW THE WORLD WAS PEOPLED.

ETHNOLOGICAL LECTURES

BY

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OF NEW ORLEANS, BALTIMORE, ETC.

"The battle of the evidences of Christianity will have to be fought on the field of physical science, as certainly as it was contested in the last age on that of the metaphysics."—HUGH MILLER.

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DEDICATION

To seven worthy Gentlemen of New York, whose Christian beneficence and liberality have enabled me to publish this Book, I respectfully and gratefully dedicate it.

EDWARD FONTAINE.

NEW YORK, *January 15, 1872.*

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P R E F A C E.

WHEN I commenced my investigations to ascertain the origin of the different races of mankind, I was very doubtful to what conclusion they would lead me. I determined to make a faithful effort to find the truth, and to embrace it, whatever it might be. By a diligent and reverent study of theology, and careful researches in archæology, ancient and modern history, and every department of natural science, I was convinced that they all descended from one original pair of parents. A sense of duty then prompted me to give this book to the public, which contains the principal arguments which fixed my mind in this belief.

I have written it for the benefit of those who are not profoundly learned, but who are anxious to clear their minds of such doubts about their origin as once disturbed my own. To aid them in the task, I have avoided, as far as possible, the use of words familiar to philologists and professors of languages and the natural sciences, but difficult to be understood by un-

learned readers. I adopted a simple and intelligible style of composition for another reason. The dictionary of our noble language is a formidable volume, and much larger already than necessary. The additions annually made to it by writers ambitious to show their learning, who invent technical phrases and coin new words from all the ancient and modern languages, is a growing evil which is severely felt by all who attempt to learn it. Each philosopher seems to be anxious to change the nomenclature of the sciences adopted by his predecessors. Discoveries of new things necessitate occasionally the invention of words to designate them; yet, very few of the *ideas*, elicited by the most prolific inventors of words, are so novel as to require *new words* for their expression. Patriotism and philanthropy, as well as true philosophy, should incite us to guard the purity of our "mother-tongue" from all profane and pedantic additions. We should improve the *tree* of our language by cultivating its *roots*, and by pruning from its *branches* all useless *parasites* and *fruitless grafts*, in order to make its treasures easily accessible to foreigners, and nutritive to the minds of our country's children.

In this book I have discarded all dogmatism of assertion, and I have avoided the enunciation of theories without facts to support them. If I have not devoted much space to the consideration of the subjects of "evolution and natural selection," published by the accomplished naturalist, Mr. Charles

Darwin, and defended by the lectures of his bold and brilliant reviewer, Prof. Huxley, it is not because I have not studied them; but, after a careful examination, I have found nothing in them, pertinent to the subject of the origin of mankind, which I have not answered in discussing the stronger objections to the doctrine of the unity of the races advanced by Sir Roderick I. Murchison and Prof. Agassiz. The renowned microscopist, Prof. Ehrenberg, Mr. Darwin, and other minute observers and industrious experimenters, by their patient researches, do a beneficial work which but few philosophers are capable of performing. They enlarge the boundaries of science, and deserve the gratitude of mankind. Such writers as Voltaire, Buckle, and Huxley, are useful in defending them in their work against the assaults of ignorance and intolerance. They sometimes, unfortunately, injure light and vicious readers, and alarm the wise and reverend, while they lash bigotry and folly. They are incapable of shedding any new light to guide men; but they extinguish the fire of intolerance by the flashes of their wit and satire. They build no useful fabrics; but they overthrow the bastiles of despotism, and the altars of hoary superstitions and idolized absurdities. They unfetter men of the type of Copernicus, Galileo, and Columbus, and embolden them to go forth on exploring-voyages beyond the confines of the *discovered* and the *known*, to penetrate the mysterious veil of the *invisible* and the *unknown*, and bring to light hidden

stores of knowledge to illuminate and bless mankind. I had rather encourage such investigators as Darwin and Agassiz to gather scientific facts; and I will not aid those who would imprison and suppress them. I am thankful for the facts they produce, while I cannot accept their hypotheses and theories. Men of the order of Newton, Cuvier, and Humboldt, can take their facts and construct with them glorious systems of philosophy, harmonious with revealed religion, and radiant with Truth Divine.

I have appended to the ethnological work a lecture on some of the peculiarities of "the Physical Geography of the Mississippi River and Valley," which I hope to elaborate and finish in a separate volume, to aid students of archæology in chronological investigations. By studying the Mississippi deposits with the aid of the facts and diagrams here presented, they can understand better the alluvium of the Nile and other great rivers, and correct numerous errors made by Egyptologists and geologists in regard to the age of the "remains of man" found in their ancient and modern formations.

The notes, I hope, will be found interesting and useful to students of science, and inquisitive readers. For the few unavoidable "words of learned length and thundering sound" found in them, I am not responsible. The brief index I have made a glossary, to render them intelligible.

EDWARD FONTAINE.

NEW YORK, *February 7, 1872.*

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HOW THE WORLD WAS PEOPLED.

LECTURE I.

INTRODUCTORY.

The Object of the Lectures.—Definition of Ethnology.—What is Truth?—Pope's Advice to Students of Science.—The Sons of Adam—some of their Descendants may not be the Offspring of Noah.—Preadamite Men Creations of Fanev.—The Marriage of Brothers and Sisters.—The Theory of the Unity of the Human Race more humane than the opposite.—The Bible not a Book of Natural Science.—Arguments against its Inspiration drawn from the Sciences.—Astronomical Arguments answered by Newton, Humboldt, Chalmers, and Maury.—The Lost Worlds.—Geology teaches a Beginning and an End.—Astronomy foretells the Destruction of the World.—All Visible Things are temporal.—Voltaire's Ignorance of Geology.—The Age of the World.—The Influence of the Pleiades understood by Job.—David's Theory of the Earth's Rotundity.—Job's Knowledge of the "Empty Place."—Clerical Ignorance of Natural Science.—Columbus and the Doctors of Salamanca; and Galileo and the Inquisition.—Adam's Age, and that of the Ichthyolites.—No Conflict between True Science and Revealed Truth.—The Bible asserts, and Geology proves, that Man was the Last Animal created.—All Human Fossils Quaternary.—Was Eve's Tempter an Ape?—Verification of Sacred History by the Abyssinian Chronicles.—The Prophecies of Isalah fulfilled and verified—the Dancing-devil Worshipers of Babylon.—Napoleon I., his Services to Science.—The Confirmation of Biblical History by the Monuments of Egypt and Mesopotamia.—Sources of Ethnological Science.—The only Uninhabited Parts of the Earth in the Time of Columbus.

My object in these lectures is to rescue true science from its perversions, and to exhibit it in the simple dress of truth. I will commence the course by showing how the most important discoveries in the various departments of natural science have been used as weapons to destroy the faith of mankind in the Bible as the revealed will of

The object of
the lectures.

God, and I will then enumerate the instances in which the same discoveries have been wielded successfully by great minds in different countries, not only to advance the boundaries of human knowledge, but to attest clearly the truth of the Holy Scriptures as a divine revelation.

Ethnology is the noble science which embraces in its teaching the diversities and peculiarities of the different races of mankind. It is only *a science* so far as it embodies certain facts constituting a *knowledge* of these races; for all science is nothing more than a knowledge of ascertained truth, organized into systems; and so arranged in books that they *may be taught*. But when Pontius Pilate asked, "What is *truth*?" he propounded a very difficult question. It was a question which could only be answered by the Great Creator, who says of Himself, "*I am the Truth.*" We must seek for it in *His nature*, and in *His works alone*, if we would find it.

When we consider how limited our sphere of action is; and how feeble our reason, when most enlightened, must ever be in our mortal state; and when we contemplate the vastness of the material and spiritual realms above, beneath, and around us, which constitute the *unknown land* which it is the mission of science to explore, we shall be warned to enter these mysterious regions with caution. True heroes of science are prone to doubt, and to mistrust

their own reasons ; and they are very reluctant to raise the shout, "*I have found it !*" in the midst of surrounding darkness ; while the ignorant are presumptuous, and the blind plunge boldly into the depths of the fathomless and shoreless unknown. The poet's admonition is worthy to be heeded by all who wish to be true philosophers :

Pope's advice
to students of
science.

"Drink *deep*, or taste not the Pierian spring ;
Light draughts intoxicate the brain ;
While drinking deeply sobers us again."—POPE.

We should be impressed by the maxim of the Grecian sage, "Know thyself;" and by the humiliating truth uttered by an inspired teacher, that we can *now* know but "*in part*;" and can only see and perceive things visible even "through a glass darkly." We live amid the shadows of a realm of "doubt and dim foreseeing;" and it will only be when we shall have "shuffled off this mortal coil," rent these material fetters, and pierced the veil which separates the *temporal* from the *eternal*, that we shall see as we are seen, and know as we are known, by the Awful Being who made us, and before whose divinity Christians, Mohammedans, Jews, and Gentiles, bow in devotion. In the consciousness of this uncertainty, I will, in my essays upon the races and nations of men, assert nothing *confidently* as *truth*. If in the heat of argument I may seem to do this, it will not be so intended. I am aware that it requires many facts, well weighed, and judiciously collated, to establish a

truly scientific theory: and even after we imagine it to be demonstrated clearly, some future investigator may bring the light of a new group of facts to bear upon it, which will explode and dissipate it as *palpable error*; and our cherished theory will be consigned to the chaotic limbo in which a thousand errors, advocated as truths by our predecessors, are buried forever.

Although *ethnology*, as a scientific subject, is inseparable from *theology*, I will endeavor so to discuss it as not to offend the sensibilities of any who believe in one God, and that He has given a revelation to mankind, whether they are Christians, Jews, or Mohammedans.

I must also, before entering upon the consideration of the much-controverted question of the descent of our fellow-men from one human pair, premise that, if I differ with those who oppose this theory, and advocate that of a diversity of originally-created parents, placed in different localities, as the original progenitors of the widely-dispersed families of the human race, I feel the utmost charity for them, and cherish a due respect for their conscientious opinions. They believe that the many millions of *negroes*, *negrilloes*, and other inferior races, have no ancestral relationship to themselves. I believe that they have; and, although I do not consider *the common tie* that binds the whole human race together as the descendants of one created pair of parents constitutes a reason why they ought also to be bound

together by the ties of either *civil* or *social connection*, I will endeavor to give my opinions, in opposition to their views, with a zeal tempered by knowledge, and with a modest, and charitable doubt whether they may not be right, and I wrong; for all human knowledge is so much obscured by uncertainty, that it becomes the wisest to be the least bigoted.

I shall advocate the theory of *the unity of the human race*; or, the descent of all nations from Adam and Eve, whether any portion of them escaped the Noachian flood or not; for it is not necessary to prove that this great deluge was *universal*, in order to establish the fact that all the existing races have a common parentage; nor is it essential to the question to demonstrate the theory that they are all descended from "the three sons of Noah." I take the position that all nations are of "one blood," as the Bible asserts, whether they are *Noah's* descendants or not; and I will undertake to show that the declaration, "these are the three sons of Noah, and of them was the whole earth overspread," is true. Its truth will not be affected if it should be ascertained that portions of the earth were settled by other descendants of Adam, before they were reached, and occupied by the migrations of the descendants of Shem, Ham, and Japheth. It is *possible* that the deluge of Noah was *local*, and not *universal*; that the whole world was settled by other progeny of Adam before this great

Sons of Adam
may not be
sons of Noah.

convulsion occurred; and that portions of it, like Central Africa, with its inhabitants, men, quadrupeds, and other animals, may have escaped its waters. But it is difficult for a geologist to conceive how there could be such an extensive submergence without its having been accompanied by the simultaneous upheaval of equal areas of ocean-bottoms, with their marine formations; yet, these are wanting in some localities long inhabited by men. But the truth of the Scriptures, as they are understood by Jews and Christians, is not damaged by the correctness or falsity of this theory. They only assert that all men are *of the blood of Adam*, as Noah was; and that the descendants of Noah overspread the whole earth. We know that it is possible that they may have done so in past ages; because we, of the present generation, have also overspread the whole earth, whether we are related or not to either Noah or Adam; and that other men occupied our possessions before us. A theory is advocated by some, that the *man* mentioned as created by God "male and female" in His image, on the sixth day of the work of the creation, was not Adam and Eve; that they were only *a superior class of animals*; and that the commonly-supposed patriarch of our race was *a subsequent creation*, fashioned after the works of these days, eras, or epochs, had been finished; and that Cain, one of his sons, after murdering his brother, went into the land of Nod, and there married a wife, who must have been a descendant of the

The preadam-
ite men.

inferior man and woman created before Adam. It is also thought that some of the progeny of this preadamite man may have wandered as far as Africa, and escaped the flood which destroyed all the descendants of Adam, except Noah and his family. I shall not discuss this question minutely; but I will remark that the theory has but little support in the Mosaic narrative. It is probable that this first and most famous of all historians, after describing briefly, and *figuratively*, the work of creation, including that of man, ends his condensed narrative; and then directs our attention more particularly to *the same creature*, whose name, history, duty, and destiny, he unfolds as the progenitor of the whole human race. The Bible does not say that Cain Whom Cain married. married in Nod, but that he there *knew* his wife.

Adam lived many years after the birth of Seth, "and had sons and daughters." Their *names and history* are not given, because *they* were not pertinent to the object of the narrative, which was intended to exhibit the dispensation of the divine government in regard to individuals and nations. The sacred history is confined to Seth and his descendant Noah and his family; and ultimately to one of them, *Jacob*, the ancestor of Christ. That Cain and all the sons of Adam married *their sisters* is probable; and the same history makes it so, by mentioning that such marriages The marriage of brothers and sisters. were permitted for two thousand years afterward. Abraham married his sister Sarah. But,

even supposing the theory I have mentioned to be correct, there is nothing in it antagonistical to the truth of the Bible. Yet I oppose it, because it is not sufficiently supported by facts, and also because its influence upon the human mind and heart is not

The unity of the race a more humane theory than the opposite.

so beneficial as its opposite. The view of the whole human race as a common family "of one blood," involved in the same calamity, called "the fall of man ;"

the participants of the benefits of a divine redemption, and the inheritors of the sublime hope of a home in heaven prepared for all the children of the universal Father, is better calculated to incite us to philanthropic efforts to promote their temporal and eternal welfare, than the opposite theory, which severs this tie of family connection. This may exist, and may prompt us to do good, as far as possible, to every human being, and yet furnish no valid argument to *extremists* to *force the vicious and degraded of this common brotherhood into sudden and intimate social unity* with those who have been elevated by the moral culture of ages, while they have only taken the first step in the process of improvement.

But those who advocate a total diversity of origin in the three great races, the *White*, *Yellow*, and *Black*, into which Cuvier divides mankind, base their position upon what they suppose to be scriptural ground, and support it by scientific arguments entitled to great respect. And whether we can over-

throw our antagonists by reason, or fail to overcome them, it is very uncharitable and absurd to

“Damn them to the zealot’s ready hell,
Which answers to all doubts so eloquently well.”

It will be useful to all who are desirous to solve the mysteries of science to observe that the Bible, which is regarded with equal veneration by all who call themselves Christians, and the books of which, written by Moses and Ezra, called *the Pentateuch*, are revered as sacred by Jews and Mohammedans, are not intended to teach us what is termed *natural science*; but its great design was to re-

The Bible not a
book of natural
science.

veal to us our duty to our Creator and to our fellow-creatures, and our destiny as intelligent and immortal beings; yet all of its assertions and allusions in regard to natural science have been found to be correct. Those who have disputed their accuracy have been often rebuked by the discoveries of others who have succeeded them.

I will now call your attention to a few cases of this kind, and will instance some of the most remarkable discoveries, in the different sciences, which have been first used as arguments against the inspiration of the Bible, and which have been subsequently wielded most successfully in its defence.

My first examples will be taken from the annals of astronomy.

When Copernicus, Galileo, Tycho-Brahe, and others, explored the fields of

Arguments a-
gainst the Bi-
ble of an astro-
nomical char-
acter.

Uranic space, and unfolded to the reason of mankind the multitude and grandeur of the worlds, suns, and astral systems which glitter in the vast empyrean, some skeptical philosophers, contrasting their *magnificence* with the apparent *insignificance* of our planet and its short-lived tenants, expressed their doubts in regard to the truth of the Bible, which asserts that the great Creator of all these orbs of light condescended to intract and *incarnate* His immensity *in the form of a man*, to teach, to elevate, and save its pigmy occupants. But the arguments

Arguments refuted by Newton, Chalmers, Humboldt, and Maury.

drawn from astronomy were answered fully by Newton, Humboldt, Chalmers, and Maury, whose gigantic intellects have solved many of the difficulties of science, and enlarged its boundaries.

Newton proved that all the revolving planets, and the suns, which are the centres of their systems, are governed by *one law*, and move in obedience to *one divine will*. Chalmers *demonstrated* that, in the infinite mind of this Almighty Being, nothing that He has made is *little* or *great*, as we understand those terms; and that, as all these worlds and their inhabitants are governed by His will, and are connected together as a community of creations and fellow-creatures, whatever rebellion and suffering disturb the most insignificant, affect them all; that their restoration to the favor of God is a matter of vast importance to the whole; and, consequently, that the *grandeur of the plan of redemption* was not

disproportionate to the *sublimity of the object* it was intended to secure—the *obedience of the whole creation to God*.

From the apparent *fixedness* of the laws governing matter, and the regularity of “rising suns and waning moons,” and of all the motions of its mightiest masses, it was argued that to these revolutions of the heavenly bodies there can be no end; and that such a catastrophe as the termination of time, and the destruction of the world we inhabit, can never occur. The fall of meteors and fiery aërolites, “shooting madly from their spheres,” might have warned such reasoners against the adoption of such a conclusion. But the Baron Alexander Humboldt refuted the whole argument by publish-

The lost worlds.

ing a list of twenty of the worlds, which once shone as stars around our own, which the annals of astronomy show have been consumed and quenched in darkness. He directed the attention of astronomers to one of these heavenly bodies, which, when he published his “Cosmos,” was wrapped in the fire of its final conflagration, and has since disappeared from the sky! “The geological column,” formed of the stratified crust of the earth, shows clearly that there has been a *beginning*, and it points prophetically to an *end*. It demonstrates

clearly that our planet has been repeatedly convulsed, rent, and swept by flood and fire; that each great epoch has been

The beginning and end of the world as taught by geology.

marked by *the sudden breaking up*, or by *the gradual*

upheaval, of the foundations of "the great deep," sinking continents into ocean-beds, and changing the bottoms of seas into plains and mountains of dry land. In the process of each one of these grand transpositions of the situations of continents and oceans, whole orders of animals and plants have been destroyed, which have never flourished upon the earth again. The Deluge of Noah was perhaps the last of these great telluric changes.

But the disappearance from the heavens of the seventh Pleiad, and of many other suns, with their planetary systems, which have followed it to the grave of worlds, forces upon our minds the logical conclusion that, as they are all *material*, and governed by *the same laws of gravitation and mutation*,

*The end as
foretold by as-
tronomy.*

they must inevitably share *the same material destiny*. After having numbered their appointed revolutions and fiery phases, "like a taper," all these suns will expire, and their places will be occupied by new orbs which will illumine "the new heavens" with their rays.

The poet, when he wrote these lines—

"Blue roll the waters—blue the sky,
Spreads like an ocean hung on high,
Bespangled with those isles of light
So wildly—spiritually bright!
Who ever gazed upon them shining,
And turned to earth without repining,
Nor wished for wings to flee away,
And mix with their eternal ray?"—

penned *beautiful poetry*, but *false science*. The ray of nothing visible is eternal. Every object we see, no matter how grand or beautiful it may be, will vanish from existence, as certainly as the bubbles which glitter upon the waves will break, and sink in the depths of the sea! The darting meteors and dissolving suns all utter the solemn warning that the most glorious of *visible* things are *temporal*, and doomed to fade and die.

All visible things
are temporal.

The discoveries in the science of geology have shared the same fate with those of astronomy.

Voltaire sneered at the Mosaic account of the deluge, and ridiculed the idea that the summits of such elevated mountains as the Alps had ever been beneath the waters of the ocean. When a geologist of Geneva showed him specimens of *fossil marine shells* found on their highest pinnacles, he displayed his profound ignorance of geology by replying that these shells had been probably dropped there by pilgrims from Western Europe journeying to Rome or Jerusalem! When sufficient progress in the science had been made to enable geologists to classify and describe the different strata of the earth's crust from the alluvium of the Quaternary, down to the earliest *eozone* in the Potsdam sandstone, through the formations of intermediate sedimentary rock, nearly forty thousand feet thick, its great age astonished Christian philosophers. Skepticism immediately used the discovery

Voltaire's ignorance of geology.

to assail the chronology of the Bible; and ignorant zeal attempted a defence more detrimental to the cause of truth than any assault of infidelity. Both the assailants and defenders in the controversy applied a chronology which has reference only to "the age of man," or what is termed "the human period," to that of the world. Moses, when he uses the words *day* and *night*, *morning* and *evening*, and their numbers, in the order of succession, from the *first* to the *seventh*, has no reference to the rising and setting of the sun in the diurnal revolution of the earth upon its axis, or its course around the centre of the solar system; but he designates *the six great eras* in the order of the creation of the planet, and of its animal and vegetable productions, which preceded man, and which ended with his appearance upon it. Not only did the *eras* of the creation of these animals and plants terminate with the end of the *sixth*, or that in which man, the highest and last of them all, was made "in the image" of God, but the very *existence* of the most of them also ended. These preadamite mollusks, fishes, reptiles, birds, and beasts, and the forests of the primeval world, had lived and *died* before the first man breathed the breath of life, and walked with God; and we find many of their remains buried in the solid rock, *five miles below the earth* on which Eden bloomed, where this patriarch of humanity dwelt, and named and ruled the inferior orders of beings which now exist with the generations of his descendants. Earth-

quakes and mighty Plutonian convulsions have rent their ancient tombs, and cast up their foundations from the depths profound. In valleys and upon mountain-crests the ancient fossils of the extinct orders of the creation are exposed to our view. They are the skeletons of beings which preceded the existence of the human race, and the rocks of their disrupted graves are the ruins of *the worlds* which rolled before "the flood."

I regret to have to say that there are yet some teachers of mankind, in all enlightened lands, who believe that the ancient earth we inhabit is *only five days older than Adam!* Some of them, The age of the world. *whose zeal for the truth far exceeds their knowledge of natural science*, are ready to treat as an infidel or heretic any man who asserts honestly his belief that this world is *much more* than 5,868 years old.* It would be well for these zealous defenders of the Bible to study the awful volume with some aid from the light of science, and *understand it* before they venture to be its champions. It needs no such defenders. They had better read at least a few such works as the "Bridge-water Treatises," and those of Hugh Miller, and study geology a little, or else avoid altogether "the Pierian spring." A "light draught" of its waters will only make them ridiculous, and prejudice men, learned in natural science, but ignorant of the

* Written in 1868.

ology, against the inspiration of that sacred volume which contains—

——“the mystery of mysteries,”

of which one of the greatest of modern authors has said :

“Better he had ne’er been born,
Who reads *to doubt*, or reads *to scorn*.” *

It is natural for men to give a portion of the contempt they feel, for the ignorance and dishonesty of an advocate, to the cause he defends. Hence, a lame and ineffectual defence of truth is often worse than none at all.

The allusions to astronomical science had been often ridiculed as absurd, such as are implied in the command of Joshua to the sun to “stand still,” and in the question in the book of Job, “Canst thou bind the influence of the Pleiades?” and also his assertion, “He stretcheth out the north over the empty place.”

Newton proved the propriety of the command, by demonstrating that the sun is the centre of gravity of the solar system. In regard to “the influence of the Pleiades,” Humboldt has shown that there is

The influence of the Pleiades. *some mysterious power* lodged in that constellation such as is exerted in no other part of the heavens; and that the sun, with all

* “The Monastery,” by Sir Walter Scott. These words, which he makes the fair maid of Avenel speak, are often improperly attributed to Byron.

its system of planets, and the whole *astral system* to which it belongs, are revolving around some object located *there*. This seems to have been known to the inspired patriarch before philosophers had discovered that the world revolved on its own axis.

Maury has vindicated the accuracy of the scientific allusions found in the various books of the Old Testament, and reminds us that, many ages before Ptolemy and Strabo wrote, and ^{The round world.} long anterior to the teaching of any geographer that the earth is *globular*, David asserted, "Thou hast made the *round world*;" and also that, many centuries before the invention of the telescope, and while, to the unaided sight of the ancient nations, every part of the nocturnal heavens presented a glittering multitude of stars, Job declared correctly that the *north* was stretched out over an ^{The empty place.} "*empty place*." A telescope of the greatest magnifying power yet invented, when turned in that direction, reveals to the eye literally an "empty place,"—a vast and fearful *Plutonian void*—a *dark, starless desert* uncheered by the beams of a solitary planet or sun.

To remind the clergy of the age of the imprudence of an attempt to defend the Bible against what they imagine natural science reveals in opposition to its truth, before they have investigated the matter fully, they need only read the history of the discussion between Columbus and the learned doctors of divinity at Sala-

Columbus, Galileo, and the doctors of divinity.

manca, and the trial of Galileo by his sage inquisitors. With what secret scorn must the great navigator have regarded these teachers of mankind who opposed his theory of the earth's *rotundity* with their notion that it was *flat and square*, because the figurative language of the Scriptures speaks of its *four corners*! And with what "sublime contempt" must the mind of Galileo have received his sentence, as a *dangerous heretic*, deserving damnation, because he taught the Copernican system, and demonstrated that the earth revolves around the sun!

What influence can any minister of the Gospel hope to exert in any educated congregation in our land, who believes and teaches *seriously* that the *ichthyolites* of "the Old Red Sandstone" are only two or three days older than Adam? The cretaceous deposit, now forming at the bottom of the Atlantic Ocean, is not made at the rate of more than a quarter of an inch per annum. This was proven by the sunken cable. When it was raised, it was found that in two years the limy precipitation, continually settling on the ocean-bottom, had only ascended its sides about *half an inch*! If the immense chalk formation of our country, once the bottom of an ancient ocean, was formed in the same way, as that is more than one thousand feet thick, and the whole crust of sedimentary rock is between thirty and forty thousand feet, how many years must have elapsed before this great deposit was completed! The formation of the one thousand feet

Adam and the
ichthyolites.

of chalk alone, at the rate of half an inch per annum, would require twenty-four thousand years!

Profound reverence, and a sincere love of divine truth, cause the sensitiveness of the clergy,* in regard to scientific discoveries, and rouse their combativeness in the defence of the holy cause to which they have consecrated their lives. But there is really no good reason for the uneasiness they feel; for only light and vicious minds are made skeptical by an examination of the facts of natural science; and it is only a *superficial knowledge of theology, or false religion*, which has any thing to fear from an *apparent* conflict between these facts and scriptural truths.

All truth, whether scientifically discovered, or miraculously revealed, is *divine*. There can be no conflict between *truth in Nature* and *truth in Revelation*. Truth belongs to God.

No conflict between science and revealed truth.

The false is opposed to his nature, and is the property of *the evil of the universe*, by whatever name it may be called—*Eblis, Ahriman, or Abaddon*.† When the mighty mind of Cuvier grasped the subject of geology, he was convinced of the truth of the Mosaic cosmography by finding the order of succession of the creation of plants, fishes, birds, and beasts, and lastly of man, as revealed by the strata of the sedimentary rocks, precisely that mentioned in the biblical account of the six days of the creation. He interpreted these *days* to mean

Cuvier and the Mosaic cosmography.

* See Note V., p. 48.

† See Note VI., p. 48.

eras, epochs, or ages. All Christian geologists agree in this interpretation, which has been elaborated beautifully by Miller in his "Testimony of the Rocks." * They find in the "diluvial drift," scattered over the whole face of the earth, sufficient evidence to prove that there has been a general deluge, or many such cataclysms; and in the elevations and depressions of continents, by the central fire beneath our feet, they have proofs enough to substantiate their faith in the prophecy of a final conflagration which will dissolve the globe, and melt all its visible elements with fervent heat.

In regard to the date of man's creation, and first appearance upon earth, there is no conflict whatever between the discoveries of geology and the statements of the Bible. There may be errors in the chronology of Usher and Newton; and also in the deduction of natural philosophers in their interpretations of "the geological column." But the Bible and geology both agree in asserting that man was *the*

Man the last created animal.

last and the *most noble* animal created, and placed upon the earth. The scientific world is divided in opinion in regard to the precise time when this event occurred; but the weight of authority is in favor of the common opinion that the first man lived about 5868 years ago; † and *none of the remains of his descendants have been found which it is certain were buried before*

* See Note VII., p. 49.

† Written in 1868.

that date. All the fossils of the human skeleton are decidedly *quaternary*, or *recent*, All human fossils quaternary. in the language of geology. They are found with plants of the highest order, like the *rosaceæ*, to which *the apple* belongs; and with animals of the most perfect organization, the *quadrumana*, or *apes*—*the nacash*, *the chatterer*, of the book of Genesis, through one of which, a learned commentator supposes, Eve was tempted to sin. Dr. Adam Clarke, the most learned of all the biblical translators, contends that *nacash*, The tempter of Eve, an ape. in Hebrew, does not mean *a serpent*, but signifies *chatterer*, or some kind of *ape*. I have no opinion upon the subject, not possessing a sufficient number of facts to enable me to form one. The common belief seems to be the most rational. The discoveries in ethnology and archæology have been used as controversial weapons with the same general result.

The brief notices of the ancient Sheba, Idumea, Assyria, and Chaldea, found in the Old-Testament history, and the distinct prophecies announcing the doom of the greatest kingdoms, empires, and cities of Africa and Asia, were very perplexing to modern historians; and all that is most wonderful in the narrative was assailed as incredible. The celebrated traveller James Bruce, who visited Abyssinia in 1775, and remained there seven years, embracing the period of the American Revolution of 1776, discovered the source of the Sacred or Blue Nile. He published a most interesting narrative of his travels, and also

the abridged chronicles of the reigns of the different monarchs of Abyssinia, from that of Menilec, the son of Solomon and the Queen of Sheba, down to the times of *Tecla Hamanout*, the reigning monarch, *and a lineal descendant of these renowned individuals.* One of the officers of King Tecla was a scribe, whom Bruce found recording the events of his reign, as was the practice of those who have written the chronicles of the Kings of Israel and Judea. He reigned over all that remained of the ancient Sheba, or Ethiopia, once swayed by his illustrious progenitrix. This enlightened empress was not the *first* of a race of powerful sovereigns whose dominions embraced the modern Nubia, Sennaar, Abyssinia, Adel, and other regions extending far south and west of the river Hawash; but she was the founder, as these chronicles prove, of the present dynasty of the kingdom which is now particularly interesting to the Christian world on account of the recent war with England, which may result in the most radical change of the condition of a large part of Africa, and secure ultimately its civilization.* This fact must be my apology for directing your attention to the valuable ethnological discoveries of Bruce, which have corroborated greatly the authenticity of the truth of the biblical history. These ancient annals inform us that this beneficent princess, having heard of the wisdom and glory of Solomon, probably through the Tyrian ships

Verification of
biblical history
by the chronicles
of Abyssinia.

* Written in 1868.

which navigated the Red Sea in the service of Hiram, the friend of that monarch, visited him, and carried with her the costly present mentioned in the first book of Kings. After spending some months with him, she returned to Sheba, with priests and rabbis to educate her son, and to convert her subjects to the true faith. This son of Solomon was born after her return, and educated in the religion of his father, which all her subjects embraced. The chronicles of Abyssinia also state that the nation professed and practised the Jewish religion, until it was converted to Christianity by Frumentius, their first bishop, sent to them by the Church of Alexandria in Egypt, in the fourth century. Since that time they have professed Christianity, which has there been greatly corrupted in modern times.

The marvellous narrative of Bruce, and especially the publication of his abridgment of these annals, excited the astonishment of the literary world. Satirists like Wolcott ridiculed him; infidels assailed him; and Dr. Samuel Johnson and other critics vented their sarcasms upon his book. They could not believe it possible that there could be a dynasty of kings, then reigning, who could trace their descent by blood flowing in unbroken succession from the wise son of David and the famous queen who was attracted to Jerusalem by his fame from her distant throne in the South, one thousand years before the Saviour's advent! It was considered too marvellous for belief that this African king could be the regular

descendant of a line of monarchs who had reigned successively over the same country for two thousand seven hundred years !

Bruce died without having received the honor due to his great worth. But, in 1842, the East India Company sent Major Cornwallis Harris to make a treaty with Sahela Salassee, the second monarch in succession from Tecla. He remained in the country two years ; and, on his return to England, published a very entertaining book, called "The Mountains of Ethiopia," in which he confirmed the truth of all that Bruce had written ; and he also brought with him an abridgment of the same chronicles, which he had copied. Their mode of separating the royal family, and confining all the members of it in a carefully-guarded palace, and which had been practised for ages, made the loss of the line of succession almost impossible. There is a "God in history," and I sincerely hope that He who rules the nations and controls all human events, and who has promised that "Ethiopia shall stretch out her hands" to Him, will, in the present century, open all her dark wildernesses to the light of His truth ; and return to them again the descendants of her unfortunate children—now upon our shores, and made, by misguided philanthropy, *the irresponsible disturbers* of the civilization of this republic—to be the benefactors and the beneficiaries of the land of their fathers.

The sacred prophecies of Isaiah and Jeremiah, uttered when Edom and Babylon were flourishing in

the plenitude of their power, foretold the utter desolation of these great cities. It was said of Babylon, that the destruction of it should be so complete that the Arabian should not "pitch his tent there;" and the *devil-worshipper* (improperly rendered *satyr* in our version) should "*dance* there." These expressions were regarded as mere figures of speech, and, with the rest of the highly metaphorical language of the prophets, furnished an excuse to skepticism to condemn the whole as a florid Oriental fiction. The learned and enterprising traveller, Joseph Wolff, who visited the ruins of Babylon forty years ago, found the prophecies which foretold its doom literally fulfilled. The city was a wilderness, without a human inhabitant.

The prophecies
about Edom and
Babylon.

The Arab tribes did not dare to encamp amid its ruins. A chief of one of them in the vicinity told him that they never ventured within the walls of it, because *the ghost of Nimrod*, at midnight, stalked among the wrecks of the ancient palaces, and destroyed their flocks and herds.

He found there a tribe of the descendants of the ancient Chaldeans, *the Yzeddis*, who were neither Christians nor Mohammedans, but were worshippers of the devil. On the anniversary of a certain night in each year, the whole tribe assembled upon the site of Babylon, and at midnight "*danced there*" in honor of the Prince of Darkness. This singular account of these devil-worship-

Dancing devil-
worshippers.

pers was afterward confirmed by Layard, who visited them, and gave in his book of "Researches" a particular description of their pandemonian ceremonies on "the night of light," which he witnessed.

Thus, these different demi-civilized sects, without knowing the existence of the prophecies, "The Arabian shalt not pitch his tent there," and "The *devil-worshipper* shall dance there," have fulfilled them to the letter, and vindicated the inspiration of "the Book of Books."

The clew to the translation of the hieroglyphics of Egypt was discovered by Dr. Adam Clarke, who examined "the Rosetta Stone,"* brought from that city, and deposited in the British Museum. He found that the three inscriptions upon it, in Greek, ancient Coptic, and hieroglyphics, had the same signification. Champollion, to whom the honor due to Dr. Clarke is generally attributed, only applied it successfully to deciphering the inscriptions upon the monuments. But the science of archæology is more indebted for its advancement to the great Napoleon than to any other individual. While he was engaged

in the conquest of Egypt, he found time, and had the scientific taste, to have her catacombs, temples, and pyramids, measured and explored, and all that was interesting about them described and engraved; and the embalmed remains of the men and animals they contained sent to Paris, for the benefit of science.

The service to
archæology ren-
dered by Napo-
leon I.

* Note I., p. 40.

Skeptics imagined that they found some things in these antiquities which conflicted with the assertions of the Bible and with its chronology. It was conjectured that these embalmed Egyptians were not *black*,* and that they were a long-haired race; and they supposed that the country was settled, and ruled by monarchs many thousands of years before Adam was created. Unlearned and incautious theologians had assumed that Ham was made black, and cursed with this color for his sin.†

The curse of Canaan.

The curse, whatever it was, was directed against *Canaan*, the ancestor of the Phœnicians of Canaan, and the colonies of Tyre and Sidon; and, among the rest, the Carthaginians. All these were dark-skinned races, like the Portuguese, and many of the French, Italians, and Spaniards, with long hair. All these ancient nations have disappeared. In regard to the dates of events revealed by the ancient hieroglyphics, the researches which have been continued since the time of Champollion and Belzoni, show that none of the kings of Egypt reigned anterior to *Misraim*, the descendant of Ham; and the pictured and sculptured walls of the temples and tombs of that ancient land displayed the truth of the Bible in a light clear as that of her cloudless sky. They testify that the children of Israel were *in bondage to her kings at*

Biblical history confirmed by the paintings and sculpture of Egypt and Assyria.

* See Herodotus, quoted, Note IV., p. 43.

† See Lecture appended, on the aborigines of America before the discovery of it by Columbus, in which *the curse of Canaan* is explained.

the time, and that they worked in clay and straw in building their structures *in the way* mentioned in the book of Exodus.

There, in bold relief and unfaded colors, are the likenesses of these slaves, and representations of their tasks, and their cruel taskmasters. The paintings and hieroglyphics of Thebes and Memphis, like the pictured bricks of Babylon and the sculptured alabaster of Nineveh, repeat the narratives of the sacred writings. Thus, in spite of all efforts to pervert the meaning of her venerable records into evidence against their inspiration, *hoary Antiquity* has risen from the dust and rubbish of the ruined capitals of buried empires, wrapped in the shroud which has bound her for twenty centuries, and, like an awful spirit from the past Eternity, she speaks to the short-lived tenants of Time, and points to her defaced and crumbling wrecks as witnesses to attest the truth that the Bible is the word of God.*

Having glanced briefly at a few instances of the perversions of scientific discoveries and their results, I will point your attention to the wide field of discussion before us, and prepare you for entering upon it by first rendering due honor to those who have explored it; and, by the facts they have given in regard to the different races of mankind, have enabled philosophers to reduce ethnology to a science.

The subject has interested mankind since the time of Homer. In order to prepare materials for

* Notes II. and III., pp. 40, 41.

his "Iliad" and "Odyssey," he travelled, as he represents Ulysses to have done, through the lands of many nations, and

"Their manners noted, and their realms surveyed."

Herodotus made the most valuable additions to the science in the earliest profane history now in existence. It is a narrative of his travels and an account of the nations he visited, based upon his own observations, and their written annals and oral traditions. Subsequent ancient authors, and especially Xenophon, Plutarch, Livy, and Tacitus, and the Byzantine historians, have given us much additional information in regard to the ethnology of the ancestors of modern nations. The voyages of Marco Polo stimulated the adventurous spirits of Columbus and Vasco de Gama to explore the unknown oceans which bounded the Eastern Hemisphere, in quest of the lands described by him. They introduced a new era in history, and performed the first great acts in what may be termed *the age of discovery*. It is, however, well ascertained that, in their discovery of this continent, the navigators of the fifteenth and sixteenth centuries had been preceded by Scandinavian voyagers from the coasts of the Baltic, who settled Iceland, and discovered Greenland, New England, and many points on the Atlantic coast between Massachusetts and Florida. Hanno, the Carthaginian, probably circumnavigated Africa before the Christian era. Columbus was succeeded

Sources of ethnological science.

by Vespuccius, Cabot, Hudson, Drake, Beehring, Kotzebue, Magellan, De Soto, La Salle, Van Diemen, Anson, La Perouse, Cook, Bligh, Beechy, Parry, Ross, and Franklin, and lastly by Wilkes, Perry, and

The sources of
ethnological
facts.

Kane, whose daring voyages pierced the waves of all the unexplored zones which belt the globe. These naval heroes, and others whose writings I shall have occasion to quote in these lectures, have expanded greatly the human mind by enlarging its knowledge of all the departments of natural science. They have been aided in their noble and beneficent work by heroes on the land, whose courage, energy, and skill, rivalled that of the valiant "sea-kings"—

"Whose march" (was) "on the mountain-wave,
Whose home" (was) "on the deep."

Tournefort, Levallant, Xavier, Las Casas, and other self-sacrificing Jesuit and San Franciscan missionaries, Mungo Park, Bruce, Ledyard, Clapperton, Denham, the Landers, Barth, Livingstone, Girard, Cumming, Alexander, Speke, Burton, Baker, Palgrave, Atkinson, Huc, Gabet, Madame Pfeiffer, Hern don, Gibbon, McRae, and the officers who conducted the various boundary and railway surveys across the continent, have given us maps and charts, and the natural history of almost every part of the earth's surface inhabited by man. These land and naval explorers have also furnished us with descriptions of the manners and customs, and life-like portraits of

all the races who compose the family of mankind. They found every part of the world inhabited by men, except the small islands of St. Helena, Mauritius, Bourbon, Ascension, Pit-^{The only uninhabited spots discovered.} cairn's, and Juan Fernandez, and the Gallapagos and Falkland clusters, and a few other isolated little points of land rising from the ocean's bosom far from all other human abodes, and too insignificant to merit our present attention.

In these lectures, from all the information collated from the works I have mentioned, and many others which I have examined, I will endeavor to settle the question of the common origin or separate descent of these widely-dispersed races. It interests you to know whether you and they are the descendants of either or of all the three sons of Noah, by whom, the Bible asserts, "the whole earth was overspread." Are they our brethren in the flesh, united with us by the consanguinity of a common parentage? Did they all die in Adam? Are they all made alive in Christ? Are they men of like passions with us? Are their hopes and fears human? Do the great commandments of God bind them? Does the Gospel of the Saviour proclaim salvation to them? Does the heaven we desire, and the hell we fear, concern their destiny? Or are some of them the offspring of pairs who, or *which*, never dwelt in Eden? Did their progenitors occupy continents and islands which the waters of the deluge never reached? Or are the miserable Terra del Fuegians, Digger

Indians of California, aborigines of Australia, and negroes and negrilloes of all varieties, only a superior race of animals, which form the connecting links between Adamite men and the gorillas of Africa and the baboons of Borneo?

These questions I hope to answer in other lectures. In concluding this, I will remind you that it was intended to be only an introduction to a subject of momentous importance, involving the happiness of more than half of the human race, but one involved in much obscurity. In attempting to clear it of some of its difficulties I will promise to advance nothing for the sake of argument. In its discussion I will summon to my aid all the candor, humility, and charity I can command, to eliminate that *truth* which is *mighty*, and which will at last *prevail*.

NOTES ON LECTURE I.

I. The Rosetta Stone was found in August, 1799, by M. Bouchard, a French officer of artillery, while digging the foundations of a redoubt. The French general, Duqua, had two casts made of it, which were taken to Paris. The original stone of black basalt is now in the British Museum, in London.

II. In regard to the infidel arguments against the Bible, derived from Egyptian sources, especially from the very doubtful annals of Manetho, and the supposed age of the oldest monuments, I will call attention to the fact that no copy of the supposed three books of Manetho Sebenytus is in existence. His history, written in the time of Ptolemy Philadelphus, B. C. 180, is mentioned by Plutarch, Josephus, Eusebius, and Syn-

cellus; but the learned Hengstenberg supposed his writings to have been spurious, and the history attributed to him to have been written after the times in which these authors thought that he lived.

Any one who will investigate carefully the subject of Egyptian archæology will appreciate these remarks of the late Dr. Francis L. Hawks, in his learned work on "Egypt and its Monuments," p. 49: "When Champollion, in the course of his researches into the *royal rings*, came to read upon the Zodiac of Dendera, he found the title of *Augustus Cæsar*; while, on that at Esneh, he read the name of *Antoninus*. That temple, therefore, which M. Dupuis had declared to be 4,000 years older than the Christian era, proved to have been built about the time of its commencement; and the edifice at Esneh, which had been profoundly demonstrated to be 17,000 years old when the Saviour came, was shown to belong to a period 140 years after His advent. And thus were exposed the pretence of learning and the insolence of arrogance on the part of a class of men who sought, by bold perversion and confident dogmatism, to distort all that Egypt might reveal, into testimony against the Bible."

III. The infidel arguments against the chronology of the Bible, as fixed by the researches of its most learned Christian commentators, such as are advanced by Dupuis, and repeated in a recent work, the "Prehistoric Nations," are anticipated, and unintentionally answered by M. Vivant Denon, one of the most accomplished of the French *savants* who accompanied Bonaparte in his expedition to Egypt, in 1798; and whose "Travels in Egypt" contain more reliable information about its physical geography and the character of its monuments than any one, or than all, of the "books of travels" in that country, and works on Egyptology, which have been published in this century. These skeptical writers base their arguments, to prove the *preadamic antiquity* of its high civilization, mainly upon the great age of the Pyramids, and the ruins of Karnac and Luxor. In regard to these antiquities, M. Denon says: * "It is probable that the Temples of Karnac and Luxor were built in the time of Sesostris, when the flourishing condition

* Denon's "Travels in Egypt," vol. ii., p. 146.

of the Egyptians gave birth to the arts among them; and when these arts were perhaps displayed to the world *for the first time*. The vanity of erecting colossal edifices was the first consideration of opulence." It is vain to dispute about the era when this great conqueror flourished, whose armies swept over Western Asia, and around the Caspian, vanquishing Scythia, as far as the Tanais—the country of the modern Don Cossacks in Europe. Greece had been peopled by Egyptian colonies long before the time of Sesostri; and had received her literature, religion, and all her ancient civilization, from Egypt. Cecrops the Egyptian founded the kingdom of Attica A. M. 2448, and B. C. 1556. Danaus, the brother of Sesostri, settled in Peloponnesus, and afterward conquered Argos, B. C. 1474. Amenophis, the father of Sesostri, was the Pharaoh who persecuted the Israelites, and was destroyed in the Red Sea about B. C. 1570. As the well-known reign of Sesostri embraced the period between 1510 and 1474 years before the Christian era, according to the opinion of M. Denon, the Temples of Karnac and Luxor, the grandest of the sacred edifices of Egypt, cannot have been built before that date. Cheops, and Céphren, who, according to Herodotus, built the Great Pyramid, and perhaps others at Ghizeh, lived long after the time of Sesostri, about B. C. 1204. The *brick pyramids*, which it is probable the Israelites assisted in building in lower Egypt, are among the many ruins which appear like hills of various sizes, of red clay, formed by the disintegrated materials with which they were constructed.

In regard to Egyptian chronology based upon supposed facts derived from quotations by Syncellus and others from the lost works of Manetho, Kenrick, in his "Ancient Egypt under the Pharaohs," says, "It is evidently impossible to found a chronology on such a basis." Of the reigns of monarchs included in the thirty dynasties many were doubtless contemporaneous; and he remarks: "If we suppose that an accurate record of *the successive reigns and length of each* was preserved from the very commencement of the monarchy, we might easily deduce the chronology of the whole interval from Menes to Nectanebus, by adding together the length of all the reigns. *But this implies that all the reigns were consecutive*; that there either were no joint or rival sovereignties; or that, if they

existed, only one was fixed on as the legitimate monarch, and *his years alone* entered in the succession. A history of Great Britain in the years of the kings of England and Scotland before the union of the crowns, or those of the Stuart and Brunswick princes since the revolution (if the years of their contemporaneous reigns were added together), would present a very false chronology." We should be very cautious in accepting the conclusions of such writers as Gliddon, deduced from calculations based upon the lists of Manetho, and monumental records liable to such errors.

IV. *Cham*, or *Kham*, is the ancient name of Egypt, and in its ancient language means *dark*, or *swarthy*. In Hebrew, *Khm* signifies *hot*. All the ancient races of white, black, and yellow people, are found pictured upon the monuments of Egypt. Their remains are found among the mummies of her catacombs. Her population was an admixture of races at a very early period of her history. Veritable specimens of black, woolly-headed negroes, differing in nothing from the most degraded species of humanity now found in Southwestern Africa, or upon the White Nile, are abundant upon the walls of the catacombs of the Thebais, commemorating events as ancient as the reign of Rameses II., or the Great—the famous *Sesostris*, who flourished about 1474 years before the Christian era. They are represented by the old Egyptian artists in chains, as slaves, and even singing and dancing, as we have seen them on Southern plantations in the present century. In regard to the color of the native Egyptians there is some doubt. It probably varied in different ages, in proportion to its admixture with Arabs, Phœnicians, Nubians, Greeks, and other nations. Egypt was alternately conquered by the Assyrians, Persians, Greeks, Romans, and Saracens, and its population became mixed with these conquering nations. The typical color given to the ancient Egyptians by their own artists is *red*. Rossellini supposes their predominant color to have been that of the modern Nubians, a *reddish brown*. Herodotus, who travelled in Egypt, says that the ancient inhabitants of Colchis, on the eastern shore of the Black Sea, were colonists from Egypt, because they were "black in complexion, and *woolly-haired*." Pindar also describes them as *black*. Æschylus mentions Egyptian sailors

whose "sable limbs" were "conspicuous in white robes." The most distinguished of ethnologists, Prichard, concluded that "the subjects of the Pharaohs had something in their physical character approximating to that of the negro." It is easy for us to imagine that a portion of this ancient Hamitic race, removed by any cause south of the great desert, and in the torrid zone of Africa, and isolated there, for many ages, from all civilized nations, would degenerate into the miserable savages they have been for three thousand years.

V. Hugh Miller, in his work, "Footprints of the Creator," gives this useful lesson to the clergy of our age: "The clergy, as a class, suffer themselves to linger far in the rear of an intelligent and accomplished laity. Let them not shut their eyes to the danger which is obviously coming. The battle of the evidences of Christianity will have as certainly to be fought on the field of physical science as it was contested in the last age on that of the metaphysics."

VI. In a small but very good elementary treatise, "The First Principles of Geology," by Dr. William J. Barbee, p. 375, the author says: "For more than forty years there has been a conflict, *not between Scripture and geology*, but between geology and *erroneous views of Scripture*. . . . We believe the Bible is the *word* of God. We believe the earth is *the material work* of God. We believe geology 'is a true copy of the original record'—the earth itself. Hence it follows: we believe that God in His *word* cannot contradict God in His *work*, and Scripture and geology go hand in hand in the great demonstration of the Divine goodness." In the same work there are several excellent thoughts in relation to "the physical and moral aspects of geology." In reference to atheistical philosophers who substitute Nature for God, and who use the name of the Great Creator as a convenient word for expressing their idea of the "vital principle of the universe," he says (p. 179): "Against such a 'vain and foolish philosophy' we enter our protest, and in place of attenuated matter, or a mental abstraction, we humbly present the claims of the true and living God—the God of creation, providence, and redemption. Fossil remains and stratified deposits exhibit a plan. The study of the

plan exhibits the designs of a Being 'whose thoughts are above our thoughts.' Every plan, whether human or divine, that works well, must involve a variety of means converging to a common end. That which is *first in design is last in execution*. . . . This is clearly manifested in the great work of the Divine Builder. He proposed the creation of the world for the abode of man. This was the first grand design. 'The perfect world by Adam trod' presents to our view the last act in the drama of creation. All intermediate designs were subordinate to the great end." This idea has been elaborated successfully and splendidly by Hugh Miller in his "Testimony of the Rocks," and by Le Vaux in "The Twin Records of the Creation."

VII. Dr. Buckland, the author of the celebrated Bridge-water Treatise on geology, supposes: "The word *beginning* was applied by Moses, in the first verse of the book of Genesis, to express an undefined period of time, which was antecedent to the last great change that affected the surface of the earth, and to the creation of its present animal and vegetable inhabitants, during which period a long series of operations and revolutions may have been going on, which, as they are wholly unconnected with the history of the human race, are passed over in silence by the sacred historian, whose only concern with them was barely to state that the matter of the universe is not external and self-existent, but was originally created by the power of *the Almighty*."

LECTURE II.

THE GEOLOGICAL ARGUMENT.

The Definition of *Types of Mankind*, or *Races*.—How they are produced.—The Influence of *Habitat*.—Were there more Adams and Eves than One Pair?—The Rev. Mr. Tong, of Shanghai.—The Bible Doctrine of the Unity of the Race.—In Adam all die.—Brother Mongols.—Maury's Advice to Students of Science.—The Theory of Development.—The Metamorphosis of Monkeys into Men.—The Four Arguments against the Theory of the Unity of the Human Race.—The Geological Argument of Sir Roderick I. Murchison.—The Anatomical Argument of Prof. Agassiz.—The Geographical Argument, and the Argument from the Diversity of the Races in Intelligence and Grades of Civilization.—The Argument of Murchison stated and examined.—Preadamite Africans.—African Fossils and Remains of Human Art.—The Inferiority of the Black to the White and Yellow Races.—The Geological Facts in regard to South Africa criticised.—The Oldest Mountains of the Earth run east and west.—The Tertiary Formation wanting in Parts of Africa.—African Fossils, and Remains of Art superficial.—How to ascertain the Age of Fossils.—Human Remains coeval with Extinct Mammalia in France.—Danish Mounds.—Fossils and Human Remains in Louisiana.—Pile Villages, Ruins of, in Switzerland.—The ancient Pile Houses of Lake Prasias.—The Ages of Stone, Copper, and Iron, reversed in America.—Descendants of Misraim.—The Ten Geological Epochs.—Noah's Deluge, whether partial or universal.—The Law of Hybridity applied to the Identification of Species.

WHEN portions of the human race are separated from others who constitute the civilized nations by oceans or other physical barriers, or by religious customs, social habits, or forms of government which seclude them, and prevent any admixture or intercourse with the people of other countries for many successive centuries, each one of these portions of Adam's descendants will be changed into what is termed "a type of mankind," or "a variety of the human race." The change

Types of mankind, and how they originate.

is effected by various instrumentalities. The principal cause of the change into types is what naturalists term *habitat*—the *locality* in which men live. Its climate, soil, and productions, and their food, occupations, and habits, The influence of habitat. mould them into their peculiar forms and aspects, and make them, in the lapse of ages, different from other nations from whom they have been long separated. In their several isolated conditions they become separate races. If the duration of their dissociation from others has continued for many centuries, their unmixed men all look like brothers, and their women like sisters of one family. Such personal resemblances distinguish the North American Indians, the Feejeeans, Australians, and Chinese. The question we have to discuss is, whether their *anatomical differences* and diversities in Was there one, or more pairs of Adams and Eves? their *intellectual* and *moral grades* justify the opinion that individuals of the *seven*, *five*, or *three* types into which they are divided, descended from *seven*, *five*, or *three* different *Adams and Eves*, or from *one original pair*; or that which supposes them to have been developed from some *inferior kind of animals*.

After I had read many books upon this subject, in the year 1853 I met in New-York City the Rev. Mr. Tong, a well-educated minister of the Gospel from Shanghai, in China, a full-blooded Mongol from a land antipodal to ours, and a fair specimen of a race as different from the most of The Rev. Mr. Tong, of Shanghai.

our mixed Caucasian kindred as it is possible for one type of mankind to be from another. He had read the same books which have enlightened my mind, and he had been ordained to the same ministry to which I belong. He conversed upon subjects with which we are familiar, and expressed opinions which we entertain. He spoke the English language better than do many of our fellow-citizens. When I heard him read the Bible, and make a speech in our mother-tongue, I thought "If he is not *a brother man* and a *brother minister*, I am more mistaken than I ever was in my life." This gentleman would have been very much grieved and disgusted if any learned Christian philosopher had attempted to prove to him that he was not a descendant of Adam.

The biblical answer to the question, "How was the world peopled?" is, I think, very explicit. In the ninth chapter of the book of Genesis, 19th verse, it is asserted of Shem, Ham, and Japheth: "These are the three sons of Noah, and of them was the whole earth overspread." It is not said that all the inhabitants of the earth are the descendants of Noah, but that his posterity have wandered over and occupied every habitable spot upon the globe. But there are other passages of Scripture which assert plainly that they are all descended from Adam and Eve. Genesis iii. 20: "Adam called his wife's name Eve, because *she was the mother of all the living*." In 1 Cor. xv. 22, the declaration, "in Adam all die," means that all who die are the

The Bible doctrine of the unity of the race,

offspring of Adam who died. All the races of mankind yet discovered are, like ourselves, sinful and fallen; they die, and mingle with the dust. ^{"In Adam all die."} This impressive biblical truth, "all die," embraces the whole family of man known to us. Until some family or nation of men shall be discovered sinless and immortal, we will find it applicable to all mankind; and it will be rational, and in accordance with the principles of true science, to infer that all the human race, who die, inherit their mortality from Adam their progenitor.* St. Paul, in his speech before the Areopagus of Athens, said: "God that made the world, and all things therein, *hath made of one blood all nations of men* to dwell on all the face of the earth; and hath determined the times before appointed, and the bounds of their habitations, that they should seek the Lord" (Acts xvii. 26). The wandering nomads of Mongolia, when they meet a stranger upon the great *steppes* of their wild country, salute him with the benevolent question, "Are we not all brothers?" † The opposers of this, which I regard as the biblical theory, have not yet given us any substitute for it which is entirely satisfactory. If the scriptural assertions which I have quoted were opposed by facts, palpable and incontrovertible, I would then conclude that my interpretation of these texts is wrong; but that their true scientific meaning is correct, whatever it may be. Prof. M. F. Maury, one of the most pro-

Brother Mongols.

* See Note VI.

† Atkinson's "Travels in Siberia"

found reasoners of this century, and whose discoveries in physical science have greatly enlarged its boundaries, and promoted the welfare of the human race much more than the efforts of any other philosopher of our age have done, because he has enabled civilized nations to turn his discoveries into something practical and beneficial, has advised all who attempt to explore the mysteries of Nature to be cautious, modest, and reverent in their investigations; and while pursuing them, if they find any thing commonly regarded as *science* opposed to the teaching of the Bible, they may conclude safely that *the science* is only “falsely so called, and *wrong*, while the Bible is *right*; and that a better acquaintance with the principles of natural science, and a correct interpretation of the Holy Book, will prove it so.” Until some unanswerable argument is urged against the unity of the human race, I shall feel it to be a sacred duty to defend it, because it seems to be asserted distinctly in the Bible; and it appears to be much more consistent with the evidence of our own observation, and the teaching of history, than the theory of the diversity of origin of the different races. It is more agreeable to the evident design of our Creator, who has given us a revelation which teaches us that He is the Father of all mankind; as His children, they are brethren, bound together by the strong tie of family relationship; and, as all nations are vivified by the same hereditary blood, each human being should be prompted by fraternal

Maury's advice
to students of
science.

affection to the performance of true charity toward every other individual of the whole family of mankind. I regard as very important the maintenance of the principle that, no matter what may be the diversities of the types of mankind, they form one vast brotherhood, and are all "members one of another;" and its necessity appears very clearly, when I consider what will be the inevitable effect of the establishment of the opposite opinion, that the various nations originated in different places, and are not descended from the same progenitors. Our sinful race are sufficiently murderous and destructive; and history is but little else than the record of the bloody wars between nations since they have occupied the earth. The great object of the Gospel is to end these disgraceful and ruinous wars, and to unite them in harmony as the children of the Prince of Peace. But the inculcation of the idea that they are not thus related can produce no pacific or beneficent effect; but its certain influence will be to foster estrangement, and increase enmity and strife among men.

This view of the subject will, I hope, be considered a sufficient apology for *the stand-point* I occupy in presenting it to the consideration of enlightened people, whose vital blood, flowing from its remote sources in widely-separated lands, relates them in various degrees to the many foreign nations who occupy both of the hemispheres of our world.

I will now consider the objections to the com-

monly-received theory that all mankind are the descendants of Adam and Eve.

Among these objections I will not include the *theory of development, or the transmutation of spe-*

The theory of the development, or transmutation of species.

cies, advocated by Lamareck, Darwin, and others. From their premises the startling conclusion is educed that the present

racés of mankind, by the natural process of transmutation, and evolution from preëxisting animal

The metamorphoses of monkeys into men.

types, have been gradually developed into varieties of the *genus homo* from *gorillas*, *apes*, or other forms of *quadrumanæ*.

The absurdity of the idea that the progenitors of *men* were *monkeys*, or inferior mammalia of some sort, has been exposed sufficiently by Lyell, Agassiz, Milvart, and other naturalists. They have thought the subject worthy of a serious scientific discussion. I therefore mention it, and refer those who have the curiosity to examine it to the able refutations of the grotesque theory in their lectures, Miller's works, and to a very recent publication of the Rev. Dr. Thompson—"Man in Genesis and in Geology"—and will dismiss it with the conclusion reached by all their arguments, and which is well expressed by Prof. Dana. He says, correctly: "Geology declares, unequivocally, that the *new forms* (including that of man) were *new expressions*, under the *type idea*, by *created* forms, and not by forms *educed* or *developed* from *one another*," or from preëxistent forms. They all conclude, and I agree with them, that the parents

of the present nations of men were *creations*, and not *developments*. They were made *men originally* by God, and not changed by Him from *monkeys into men*.*

After a careful examination of all the objections to the doctrine of the descent of all mankind from Adam and Eve, I can find only four which deserve a serious refutation. They are: 1. The argument against the descent of the negro tribes of Africa from Noah, based upon the extreme age of the surface of that continent south of the great Desert of Sahara. The surface of the vast area of Central Africa occupied by these woolly-headed black tribes for unknown ages is older than the tertiary formation, and shows no marks of diluvial action, and exhibits no traces of any submergence beneath the ocean, while its rocks contain no marine fossils. It is supposed by some to have been settled by the negroes before the era usually assigned by chronologists to the Deluge of Noah. This objection has been urged with great force by Sir Roderick I. Murchison, the president of the Royal Geographical Society of England, and by Sir Samuel Baker..

The four objections to the unity theory.

Geological argument of Murchison and others.

2. The anatomical differences between the different races, and especially those which distinguish *the black and white*, indicate their diversity of origin. This has been argued very ably by the most distinguished naturalist of this or any other age, the amiable and accomplished Agassiz.

The anatomical argument of Agassiz.

* See Note V.

3. The separation of the races from each other for unknown ages by great oceans, and by formidable and almost impassable continental barriers, it is contended by some, opposes the probability that they descended from one parentage, and migrated from one spot.

The argument from difference of grades of intelligence and civilization.

4. Their disparity in intelligence, and in their grades of civilization, favors the theory of their descent from different originals.

The first and the strongest argument against "the unity of the human race," advanced by Murchison, is supported by the distinguished traveller Sir Samuel White Baker, knighted recently, and honored with the bestowal of the gold medal of the Royal Geographical Society of England, for his discovery of the Albert Lake, in the interior of Africa. He gives his testimony to aid the correctness of Murchison's demonstration in regard to the great antiquity, geologically, of the part of Africa which he explored. He says: * "Lost in the mysterious distance that shrouded the origin of the Egyptian Nile, were races unknown, that had never been reckoned in the great sum of history—races that we have brought to light, whose existence had been hidden from mankind, and that now appear before us like the fossil bones of antediluvian animals;" and he asks: "Are they vestiges of what existed in a preadamite creation?" Taking

The geological argument of Sir R. I. Murchison stated and examined.

* "Albert Nyanza," p. 481.

it for granted that Sir Roderick I. Murchison had demonstrated the fact of the non-submergence of the portion of the area of Africa examined by himself, Livingstone, Speke, Burton, Kirk, and Baines, he adds: "Central Africa never having been submerged, the animals and races must be as old as any upon earth, and they may be older. No geological change having occurred in ages long anterior to man, as shown by Sir R. I. Murchison, . . . it is natural to suppose that the races that exist upon its surface should be unaltered from their origin. That origin may date from a period so distant that it preceded the Adamite creation." If these skeptical conjectures were supported by facts, we should be compelled to abandon the common opinion of the length of what is termed "the human period," or the date of man's existence upon earth. If that region has suffered no submergence, or violent convulsion, since the formation of the secondary rocks; if, as it is asserted, even in the older mesozoic and paleozoic strata, all the fossils yet found are terrestrial, and unassociated with marine limestones, showing that there have been no oscillations of the land such as have marked the geological history of other countries; if, then, the lower animals and plants of this vast country have existed there unchanged for a very long period, Sir Roderick asks, "May we infer that its human inhabitants are of like antiquity?" He states that Livingstone found the fossil remains of the buffaloes, antelopes, croco-

Preadamite Africans.

diles, and water-tortoises, all now existing there, and among these fossil remains they also discovered *fragments of pottery* made by human hands. No fossil remains of the men who made this pottery have been found with it, and the evidence that the pottery is of the same age with the bones of the animals is wanting; and, before coming to a correct conclusion in regard to the period of man's existence in Central and Southern Africa, he says: "We must wait until some zealous explorer shall distinctly bring forward proofs that they are of the same age with the fossil bones. In other words, we still require from Africa the same proofs of the existence of links which bind together the sciences of geology and archæology, which have been recently developed in Europe." He draws no distinct conclusions from the discovery of the fossil bones of inferior animals, and the remains of ancient human art mingled with them. But doubts are suggested by his observations in regard, *first*, to the correctness of the chronology of the Bible in reference to the creation of the *first man*; and, *secondly*, to the probability of the descent of the makers of this ancient pottery from him. He adds to the above-quoted passages, these observations, which are certainly correct: "Now, if the unquestioned works of man should be found to be coeval with the remains of fossilized existing animals in South Africa, the travelled geographer who has convinced himself of the ancient condition of its surface, must admit, how-

African fossils
and remains of
human art.

ever unwillingly, that, although the black man is of such very remote antiquity, he has been very stationary in civilization, and in attaining the arts of life, if he be compared with the Caucasian, the Mongolian, the red Indian of America, or even with the aborigines of Polynesia. The most remarkable proof of the inferiority of the negro when compared with the Asiatic, The inferiority of the negro, as compared with the white and yellow races. is that, while the latter has domesticated *the elephant* for ages, and rendered it highly useful to man, the negro has only slaughtered the animal ^{as a} for food, or to obtain ivory." *

In regard to the first-mentioned doubt suggested, affecting the correctness of the date usually assigned to the creation of man, which biblical scholars of this age fix about 5,874 years ago,† it is easy to perceive that it possesses but little weight, even when framed into a distinct argument, and stated much more strongly. Let us admit the superior age of the surface of Southern Africa, or the ancient Negroland, to that of any other continent yet examined The geological facts examined. by geologists. It is described as abounding in old mountain-chains running east and west, like the Himalaya and others in both hemispheres, and which geologists decide to be much The oldest mountains of the earth. older than the chains which extend from north to south, like the Cascade Mountains, and the

* Extract from Sir R. I. Murchison's address to the Royal Geographical Society of England, May 23, 1864.

† Written A. D. 1870.

western ranges of the Peruvian and Chilian Andes, where the central fire of the planet is yet emitted from active volcanoes. It is said that the upheaval of the South-African mountains has disturbed no marine fossiliferous rocks. No cretaceous rocks, marine limestones, or other sedimentary strata, formed in ocean beds, have been discovered. The whole *Tertiary formation*, which in other countries lies between the *Cretaceous* and the *Quaternary*, is wanting, and

The Tertiary formation wanting in Africa.

there is nothing to show that this extensive area, intersected by the White Nile, the Zambeze, Niger, Congo, and Great Orange Rivers and their tributaries, and occupied by the ancient negro race, has ever been sunk beneath the ocean's surface, or swept over by the waters of a deluge. No glacial scratchings and groovings of the igneous rocks have been made by grounding icebergs or moving glaciers; and no moraines, bowlders, or water-worn pebbles, indicative of "drift periods," or the rushing of sea-currents, have marked its venerable visage, according to the conjectures of the geologists who have given us all the information we have about it. But, admitting the correctness of their conjectures in regard to the geological age of the country, the facts they have presented in relation to its surface are calculated to make me doubt the accuracy of their conclusion in reference to the extreme antiquity of the pottery and fossil bones found *upon it*. If these remains of animals and human art had been

The African fossils and pottery are superficial, and their age cannot be determined.

found *beneath* the surface of South Africa, and imbedded unmistakably in a stratum of the carboniferous, or of the "Old Red Sandstone" formation, then the conclusion would be inevitable that they are not only more ancient than the *Quaternary*, or *human period*, but that they are older than the *Tertiary* or *Cretaceous*. But they are found *upon the surface*. They are *superficial detritus* mingled with the wrecks of the mountains, hills, and valleys, made by rains, lightnings, winds, and earthquakes, and all the forces of Nature, which abrade, disintegrate, commingle, and change all the features of the face of our Mother Earth. Who can determine how long these wrecks have lain on the spots where they are found? We might form some reasonable conjecture if fragments of any strata *in situ* were mixed with them, or if any layers of known materials were piled above them. But the same difficulty is found, How the age of a fossil may be ascertained. in ascertaining the date of their deposition, which attaches to whatever is imbedded in the *Quaternary* or *recent* geological formations, whether animal remains or relics of man's works, because this formation is *the earth's surface*, which is swept and shifted continually by the ever-moving besom of Nature. The geologists quoted by Murchison and Baker mention another fact which makes the antiquity of these fossils still more doubtful. African tufas. They testify that South Africa abounds in "calcareous rocks" and *tufas* formed by the deposits of land-springs. When I reflect how

abundant such petrifying waters are in the interior of our own continent, and how rapidly they turn *wood, bone, and all porous substances, into stone* by the carbonate and sulphate of lime, and the siliceous which they hold in solution, I am very skeptical in regard to the age of all fossils found in any localities irrigated and penetrated by these mineral streams. The carcass of a buffalo, or the shell of a terrapin, the skeleton of a man, or a block of wood, immersed for a few years in one of these streams, will be metamorphosed into a mass of stone, which, if it is exposed upon the earth's surface until it is blackened and worn by the sun and rain, or covered with moss, will look as old as the Egyptian Sphinx, or a nail from Noah's ark. A convincing proof of the age of a fossil is not its stony solidity, nor its decayed condition, nor its ancient appearance, nor even the fragments of old rocks associated with it, if they are superficial, or near the *surface*, as all these African remains yet discovered seem to be. The only satisfactory evidence of extreme antiquity must be derived from the proof of its *entombment* in a very old formation well known to geologists; or its burial beneath clearly-defined, solid, and ancient strata. If these formations have been laid during succeeding epochs of numerous years or ages, above its grave, then we may safely conclude that the fossil is very old. If it is found entombed in the Tertiary, or any formation beneath it, we must decide that it is much older than Noah or Adam. It is certainly very unsafe to deduce

a conclusion adverse to the correctness of the Mosaic chronology upon such doubtful evidence as is afforded by these African fossils, and their associated remains of the works of the aborigines of that newly and very imperfectly explored country. But, even if the proof which Sir Roderick Murchison requires to make the preadamite origin of these aborigines certain were given, and if it could be clearly established that these fossil bones and the fragments of pottery are of the same age—the evidence would be, as I have shown, by no means conclusive. The establishment of “the existence of the links which bind together the sciences of geology and archæology which have been recently developed in Europe,” which he thinks may be done in Africa by some future explorer, would not strengthen the argument. A careful examination of the recent discoveries of aboriginal men in the different parts of Europe, who lived anterior to the conquest of Gaul, Britain, and Germany, by the Romans, has failed to show that any of them occupied the earth before “the human period,” or the Quaternary. Admitting the correctness of Sir Charles Lyell’s statements,* that “there have been found of late years, in the more ancient gravels in several valleys in France and England, as for example in those of the Seine and Somme, and of the Thames and Ouse, near Bedford, stone implements of a rude type, showing that man coexisted in those districts with *the elephant*, and other extinct quadrupeds,” we find the most ancient imbed-

* “Elements of Geology,” ch. x., p. 115, sixth edition, 1866.

ded in the Post-pliocene alluvial deposits of those rivers. The most skilful geologist living cannot fix the precise date, or age numbered in years, of the deposits of rivers now existing, and especially of those in whose valleys no ancient monuments, like those of the Nile, with dates inscribed upon them, are standing. He will decide that the *oldest* of their deposits are new in the language of geology. The discoveries of Messrs. Perthes, Regollot, and Prestwich, Human remains at Abbeville and Amiens, France. "in ancient alluvium" at Abbeville and Amiens, prove that an aboriginal race, who were *Celts*, or who preceded them, were hunters, and used implements of stone like our North-American Indians; but they determine nothing in regard to the precise period when they flourished. They may have been the contemporaries of Abraham and Lot; and they probably were coeval with the builders of the "kitchen middens," on the coasts of the Danish islands of the Baltic, and of the pile-habitations of the primeval occupants of the shores of Lake Zurich in Switzerland. These Danish mounds are described as consisting of "castaway shells of the oyster, cockle, periwinkle, and other eatable mollusks," * from three to ten feet high, and from 200 to 1,000 feet in their longest diameter. They greatly resemble heaps of shells formed by the red Indians of North America along the eastern shores of the United States. . . . They contain," like them, "knives,

The age of alluvial fossils cannot be determined.

Human remains at Abbeville and Amiens, France.

Danish mounds, or "kitchen middens."

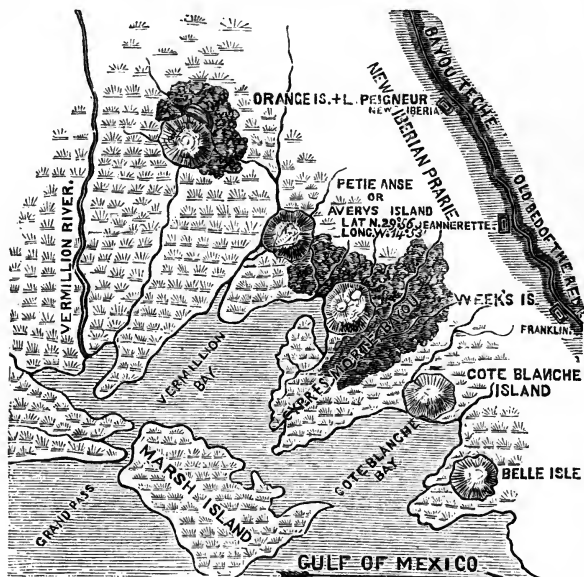
* Sir Charles Lyell's "Elements of Geology," 1866, p. 109.

hatchets, and other tools" of stone, with fragments of rude pottery; and sometimes the bones of the animals upon which they fed. On the island of Petite Anse, in St. Mary's Parish, Louisiana, remarkable for its resting upon an immense deposit of crystallized salt, at a depth of twelve feet below the surface, and immediately overlying the salt rock, incredible quantities of pottery were thrown out of the pits by the miners, mingled with fragments of the bones of the elephant and other huge extinct quadrupeds. In company with Prof. Eugene W. Hilgard, I examined this locality in 1867. Cane baskets, stone hatchets, a large stone anvil, and pottery of six different patterns, were thrown out in heaps with the fossil bones of these mammalia.* The animals seemed to have been bogged, and perished in the miry clay above the salt, which they frequented, as they did in the Lampasas Salt Sulphur Springs of Texas, from one of which, Scott's Spring, the carcasses of many buffaloes were removed while the proprietor was digging out the deep mud for the foundation of a bath-house in 1855. The aborigines used the rock-salt; and there seems to have been immense quantities of it required for their various purposes, from the heaps of the fragments of baskets and clay-vessels imbedded in the valley. But none of these remains of the aborigines of Louisiana, or of the extinct mammalia, can claim a very great antiquity. For the whole island, of more than two thousand acres of

Fossils and remains of man in Louisiana.

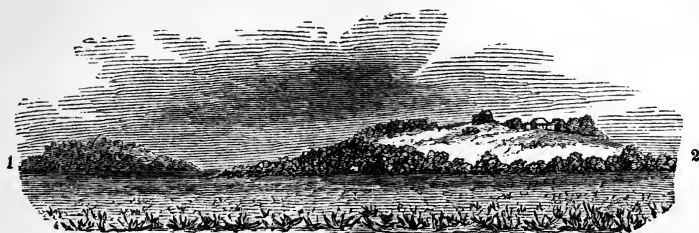
* See Note III.

land resting upon the solid rock-salt, is comparatively recent. All the formations are *Quaternary*, belonging to "the Bluff-formation" of Mississippi—a sort of loess, the remnant of the ancient valley of the great river, and overlying "the Orange Sand." The Orange Sand is newer than the Tertiary; and the valley, in which the bones and aboriginal works of art are found, is alluvium, washed from the surrounding hills, and the whole not more than sixteen feet thick. In this recent deposit they are so mingled that we can only infer that the men and animals were probably coeval, and that they lived and died in an age not far removed from our own.



Map of the Salt Islands in St. Mary's Parish, Louisiana.

PLATE I.



1. Weeks's Island.

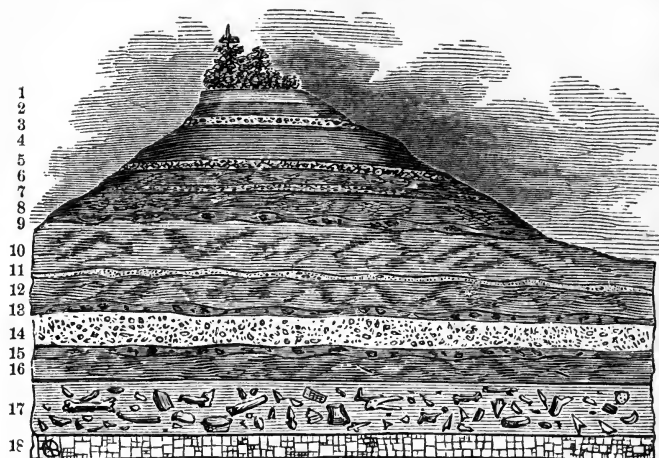
2. Petite Anse Island.

In 1854, Dr. F. Keller explored, near the shore of Lake Zurich, at Meilen, the ruins of an old village, built originally upon piles of wood. Since that time numerous similar ruins have been explored near the borders of the Swiss lakes, where the depth of the water does not exceed fifteen feet. Their houses were so constructed evidently for defence against enemies who used weapons, in successive ages, made of flint, and afterward of metal. These aboriginal Swiss certainly lived before the conquest of the Helvetii, a half century prior to the Christian era, and they may possibly have been contemporary with the Pœonians of Lake Prasias, mentioned by Herodotus, who, about five hundred and twenty years before the Saviour's advent, lived, he tells us, in houses which "were built on a platform of wood supported by wooden stakes, while a narrow bridge, which could be withdrawn at pleasure, communicated with the shore." In Europe, the first inhabitants used flint. Their successors, more advanced in civilization, made im-

Ancient lake villages of Switzerland.

Pile houses of Lake Prasias. Herod., v., 16.

PLATE II.



A Geological Section of Petite Anse Island

GEOLOGICAL SECTION OF PETITE ANSE, OR AVERY'S ISLAND.

SECTION.		FEET.	INCHES.
1	Surface-soil	1	
2	Stiff red clay	1	
3	Blue clay, with calcareous concretions.....	1	6
4	Yellow loam, unstratified.....	20	
5	Yellow sand and pebbles resting upon an ochreous conglomerate of siliceous pebbles.....	10	6
6	Ripple-marked yellow sand.....	6	9
7	Brick-red conglomerate.....		6
8	Ripple-marked yellow sand.....	19	
9	Gray clay, containing leaves and fresh-water shells of variable thickness.....	1	
10	Ripple-marked yellow sand resting on a seam of siliceous pebbles.....	30	
11	The same formation below the pebbles resting on gray clay.....	20	
12	Gray clay, with leaves and fresh-water shells.....	3	
13	Ripple-marked sand, resting on clay.....	40	
14	Pebbles and sand.....	4	
15	Gray clay and sand mixed.....	10	
16	Pottery, fossils, baskets made of cane, pebbles colored black, mixed with sand and clay.....	9	
17	A gray mixture of salt, clay, and sand, which hardens into stone when exposed to the air....	3	
18	Rock-salt of unknown thickness.....		
	Sea-level.....	182	

PLATE III.



Aboriginal Stone Anvil, shaped from a Boulder of Diorite, 15 inches high, 14 inches wide, and 9 inches thick, and weighing 70 pounds.

plements and ornaments of various kinds of bronze. But in North America the mound-builders, and the races who used copper, and seemed to have been in many localities dwellers in large towns and cities, and in valleys too

The ages of flint, bronze, and iron, reversed in N. America.

densely populated to justify the supposition that they were savage hunters, were exterminated or driven out of the valley of the Mississippi by a ruder and more warlike race, whose weapons were made of stone. The remnant of the Pamunkey Indians, of Virginia, were living, in 1835, upon the river which bears their name. I saw them then, and found them still making

The Pamunkey Indians, of Virginia, made pottery in 1835.

and selling pottery made of clay, mixed with pounded muscle-shells, of the same materials and patterns found among the aboriginal ruins on the streams of every portion of Eastern Virginia. As late as 1822 the colonists of Austin fought with the Carancahuas and other tribes of Indians in Texas, armed with bows and arrows with flint points, barbed and shaped like those found at Abbeville in France, and scattered over the surface,

The Carancahuas of Texas used flint arrow-heads in 1822.

and imbedded in the alluvium of the whole Continent of North America. The wandering nomads of the Southwestern prairies made, and used for hunting and fighting, the same stone weapons after I went to Texas, in 1839.*

In reviewing critically all such archæological facts connected with geology as those which I have mentioned, I can find nothing to authorize a reasonable doubt of the correctness of our chronology in regard to the period of man's appearance upon the earth. There is positively no scientific fact yet discovered which furnishes any satisfactory evidence that any portion of the human race were in existence before the year 4000 or 4004 anterior to the birth of Christ.

The second objection to the descent of these African negroes from Adam, suggested by the distinguished geologist who is now † the president of the Royal Geographical Society of England, and whose scientific attainments and deserved renown entitle his opinions to the highest respect, is based upon the fact that the Deluge of Noah did not reach the region in which they lived when first discovered by Europeans. But, if the period of their settlement cannot be ascertained by the archæological traces of their ancestors, nor by any other mode, the objection is of no great weight. We may admit that they are not the descendants of Ham, whose name signifies *warm*, and some of whose descendants certainly set-

* Note I.

† Written in 1870.

tled Egypt. They are not the descendants of Canaan, the son of Ham, against whom the curse of servitude to the posterity of Shem and Japheth was pronounced.* Canaan's offspring were the Sidonians, Tyrians, Carthaginians, and others, whose history is better known than that of most of the progenitors of the present nations of the earth. There is nothing to prove that they are not the offspring of some of the sons of Misraim who migrated at an early period up the Nile, and in the Descendants of Misraim. course of ages were dispersed over the torrid climes around its sources, and south and west of its remotest springs. But, if irrefutable proofs could be adduced to show that they are not the descendants of either of the sons of Noah, the evidence would not oppose any ethnological truth asserted in the Bible. That only asserts that the descendants of Noah have *overspread* the earth. It does not say that the whole human race are the offspring of Noah. The text is Genesis ix. 19: "These are the three sons of Noah, and of them was the whole earth *overspread*." But the truth is reiterated, in various passages of the Old and New Testaments, that Adam and Eve are the parents of all mankind. Yet it seems to be clearly stated that all their descendants, except Noah and his family, were destroyed by the deluge described in Genesis, if the expressions, "all flesh wherein is the breath of life," "every living substance was

* See the curse of Canaan explained in the lecture on the aborigines of America, appended to this work.

destroyed," and "the waters prevailed upon the earth," are intended to signify a general deluge affecting the entire planet. These strong expressions seem to be applicable only to one of those great and universal changes which have embraced repeatedly the whole globe. Correct geological charts designate at least *ten* of these awful destructions of life upon our planet; and future investigations, which will enable geologists to mark more accurately the chronological arrangement of the strata of the earth's crust,

The geological epochs. may reveal many more. As the geological column stands before us in the year

1870, in examining the divisions of the tertiary, secondary, and primary formations, which are the tombs of all the animals which ever lived, we find that, through the instrumentality of flood and fire, heat and cold, the breaking up of the foundations of the great deep, and the sinking of continents and islands into the depths of oceans and seas rolled from beds upheaved into dry land by sudden convulsions or slow changes, by swift destruction or lingering decay, *in ten different epochs*, all the orders of plants and animals have been totally destroyed. The Tertiary, Cretaceous, Jurassic, Triassic, Permian, Carboniferous, Devonian, Silurian, Cambrian, and Laurentian, embrace these eras; and, as they succeeded each other, new creations of living forms appeared upon the earth, but few of which lived in the epoch which preceded it. As far as all animal and vegetable life is revealed by these formations, we infer

that each destruction was followed by a *new creation*, like that which placed man upon the earth with the living animals associated with him. If the creation of man succeeded one of these periods, which was marked by the destruction of life as total as we suppose, all that geological science has revealed so far to aid us in fixing the date of his crea- The geological date of Noah's flood. tion authorizes us to place it at the beginning of the Quaternary era. These great convulsions of Nature, or these gradual destructions, were probably *simultaneous* in their action upon all the continents and oceans of the earth. We infer this from the fact that a great depression of a continent in one hemisphere must necessarily be attended with a corresponding elevation of ocean-bed into dry land in the other. It is therefore very difficult to conclude correctly that the Noachian Deluge The Deluge of Noah universal. was only a *local cataclysm*. Yet it is possible that it may have been, and that it only submerged that portion of Asia where Noah and the descendants of Cain then lived. The expressions "all the land," "all the world," "the kingdoms of the world," and "all men," are sometimes only used as *hyperboles* by the sacred writers, and are often applicable to the Holy Land, and to regions and people contiguous to the localities where they lived. If Asia and Africa were connected, as they are now, in the time of Adam, during the fifteen hundred years which elapsed from the birth of the youngest of his children to the deluge, some of them may have

reached and overspread all Southern Africa. Under ordinary circumstances, any one prolific family could people a hemisphere in the space of one thousand years. Nearly 1,656 years passed away from the birth of Cain to the era of the deluge. During all these ages, men were overspreading the earth in clans and nations. The Bible gives the names of none of the children of Adam, except Cain, Abel, and Seth. Cain and his descendants are mentioned as wicked and cursed, and certainly destroyed by the flood. Abel was killed by Cain, and left probably no children. Seth is distinguished as the ancestor of the Messiah, who descended from him through Noah. The biblical genealogy embraces but little that is not pertinent to His descent, which it traces from Adam through Seth, Noah, Abraham, Isaac, Jacob, Judah, and David, to Mary, his virgin mother. But, in addition to Cain, Abel, and Seth, Adam had other children, whose posterity and names are unknown. The Bible is not a treatise on ethnology. Only enough of the biography of individuals and of the history of nations is included in its sacred pages to teach us our duty to God and to one another, and to induce us to serve Him by unfolding to our reason the rewards He bestows upon the righteous who obey His will, and the punishment He inflicts upon the wicked who spurn His law. If it could be demonstrated (*which has not yet been done*) that Southern Africa was occupied by hunters before the flood, enough has been re-

Other sons of
Adam besides
Cain, Abel, and
Seth.

vealed to us in a single text of the book of Genesis, to show us how it could have been settled by the descendants of Adam one thousand years before that event. After mentioning the birth of Seth, the inspired narrative, Gen. v. 4, says: "And the days of Adam, after he had begotten Seth, were eight hundred years; and he begat *sons and daughters*."* The names, the posterity, the migrations, and the after-history of these sons and daughters, are unknown. Within the long interval of ages which rolled away before the deluge, some of them may have settled in those torrid lands which the waters of no flood have ever bathed. There, for ages before the ark rested on Ararat, and for a thousand additional years before the prophet wrote † "Can the Ethiopian change his skin?" the sun of that fiery clime may have burnt upon them until their original forms and complexions have been metamorphosed into what they now present. They resemble, probably, the perfect original pair who in the unfallen Eden walked with God, as little as the Esquimaux look like us; or as our own posterity would appear like ourselves, and like one another, if they should be dispersed to-day, some to Greenland, and others to the groves of South America and the deserts of Gobi and Sahara, and be brought together for comparison, after remaining in these widely-separated localities and opposite climates for three thousand years.

* See Note II.

† Jer. xiii. 23.

Supposing that "the last day"—*the end* foretold by inspired seers, and distinctly foreshadowed by geology as certainly as it demonstrates *the beginning*—should be deferred to that date in the distant future, if our posterity could then be assembled to-

Humboldt's argument of unity of race proved by fecundity.

gether in social union they would give the proof of identity of species advanced by the Baron Humboldt in his "Cosmos," which would be sufficient to satisfy any philosopher, as profoundly learned in natural science as that great German was, that their descent was from the same original parents. This argument to prove the unity of the human race, or their descent from one pair, never has been and never can be refuted. The various races are not like the different beasts which resemble each other closely, like the horse and ass, or of birds, like the kite, falcon, and eagle, *varieties of a genus*; but they are *varieties of a species*. "They are not *different species of a genus*." He says: "The different races of men are *forms of one sole species*. They are not *different species of a genus*, since in that case their *hybrid descendants* would be *unfruitful*." * This mysterious law

The hybridity of offspring proves diversity of species.

of hybridity, as far as it is understood, is almost without any exceptions in its application to all animals, and even to plants. The offspring of two birds as much alike as the common domestic goose and the large Muscovy duck will not propagate their species. The

* "Cosmos."

mixture is a hybrid without fecundity, and it perishes with the first generation. Mules cannot perpetuate their kind. Two animals of the horse kind as dissimilar in size, color, and appearance, as the little black Shetland pony, and the tall, white, Yemen Arabian, will breed together; and their descendants, however inferior, will continue to perpetuate their brood, proving the identity of species, no matter what varieties they may present. The white Caucasian of the most perfect type, a model for the sculptor's Apollo Belvedere, if united in marriage with a dwarfish and yellow Esquimaux, or deformed, baboon-featured, black woman of Guinea, would prove the correctness of the theory as tested by this unerring law of hybridity. The ill-mated pair would produce an inferior offspring, whose descendants, superior to the Grebo, and inferior to the Circassian, would continue to multiply the degenerate posterity of Adam and Eve.* In all the examples adduced to combat the argument of Humboldt, it can be easily proved that naturalists have made the mistake of confounding *genera* with *species*, and that the supposed fruitful hybrids, such as the offspring of the domestic dog and wolf, and the progeny of the wild-goose of Canada and the common tame varieties, are the offspring of beasts and birds of the *same species*. The influences of climates, food, and habits, may have made the parents of these new varieties of animals very different in form, size, and color, from

* See Note IV.

each other, and from their prolific descendants. We have the proofs of this afforded us continually in the production of new and improved varieties of cattle, horses, sheep, and swine, by the judicious *crossings* of breeds brought from widely-separated countries, and also in the development of superior kinds of grains, fruits, and vegetables, by the various processes of scientific culture. The beautiful but fruitless flowering peach-tree of China, in Mississippi, has been made to bear delicious fruit from double flowers; but no process of budding, grafting, or cultivation, will ever enable men to "gather grapes from thorns, or figs from thistles."

NOTES ON LECTURE II.

I. A curious but not very good reason why copper implements were used by the ancients before those of iron, is given by Lucretius, in *De verum Natura*, lib. v.:

"Arma antiqua manus, ungues, dentes fuere,
Et lapides, et item silvarum fragmina rami,
Et flamma, atque ignes postquam sunt cognita primum
Posterior ferri vis est, aerisque reperta.
Sed prius aeris erat quam ferri cognitus usus,
Quo facilis magis est natura, et copia major."

Creech's translation, which is not very literal, is:

"While cruelty was not improved by art,
And rage not furnished yet with sword or dart,
With fists, or boughs, or stones, the warriors fought—
These were the only weapons Nature taught:
But when flames burnt the trees and scorched the ground,
Then brass appeared, and iron fit to wound.
Brass first was used, because the softer ore,
And earth's cold veins contained the greater store."

In Mexico there is more copper than iron, but in other countries iron is the most abundant ore. The ancients knew nothing of *brass*, which is a compound of *copper* and *zinc*. The latter metal was discovered by *Paracelsus* in the middle ages. They used *bronze*, an amalgam of *copper* and *tin*, a trade in which was carried on by the Phœnicians with the *Cassiterides*, or ancient Britons of Cornwall.

II. In the land of Nod, Cain, it is said, *knew* his wife; a modest expression for "*had sexual intercourse with her.*" She was evidently his sister. In "The Types of Mankind," published by Dr. J. C. Nott and G. R. Gliddon, p. 408, this singular assertion is made by Dr. Nott: "Cain knew his wife, *whom he found in a foreign land, when he had no sister to marry*, and although corruption and sin were not wanting among the patriarchs, *yet nowhere in Scripture* do we see, after Adam's sons and daughters, a brother marrying his sister." Cain did have a sister to marry, because it is said of Adam, Genesis v. 4, "he begat sons and *daughters.*" Abraham married his sister Sarah. Such marriages were common among the nations of the East in the early ages. Ptolemy Euergetes and Ptolemy Dionysius married their sisters Cleopatra V. and VI. To widen the circle of social benevolence and to make the bond of brotherhood embrace clans and nations, and also to improve families by admixtures with others, and to prevent degeneracy and selfishness, by restricting marriage to close relations, such alliances were prohibited by the divine law in subsequent ages, after nations had multiplied and overspread the earth.

III. The whole island of Petite Anse contains between 2,100 and 2,200 acres of high land, composed entirely of irregularly-stratified ancient alluvium, or loess, termed by American geologists the "bluff-formation of the Mississippi," such as has been examined at Natchez, Ellis's Cliffs, and Port Hudson. Its highest point is 182 feet above the tide-level. What is termed the "Orange Sand," a drift-formation which overlies nearly the whole State of Mississippi, but underlies "the Bluff-formation," is the base also of the hills of Petite Anse. This drift seems to rest upon the salt-rock where it has been mined. The only

mining performed prior to 1867, when I examined it, had been done in a valley whose surface was 22 feet above the Gulf of Mexico. There, the solid salt was found 16 feet below the surface of the valley, and six feet above the tide-level. The orange sand, mammoth-bones, and the remains of other extinct mammalia, with perfectly-preserved cane baskets, six varieties of pottery, a large stone anvil,* and hand-hatchets made of diorite, were all found in the pits about twelve feet below the surface of the valley. Upon the surface, a well-preserved furnace for making the pottery was found in the same valley by the sons of Judge Avery, who owns the island. This has since been undermined and destroyed by a little fresh-water stream, whose alluvium forms the valley above the salt-rock. As no borings or excavations had been made through the bluff-formation or the hills, and no fossils had been discovered, except in the very much-mixed alluvium of the valley of the little brook flowing through it, I could not ascertain whether these fossils thrown out of the pits were older than the loess. Where they were found, they seemed to be newer. The mammalia, elephants as well as aboriginal men, were evidently attracted to the spot by the salt-rock. My first impression was, that these verdant hills were already formed, and covered as they are now with a magnificent forest, whose undergrowth is cane thirty feet high, where they have been left in their primitive state, and that the animals browsed upon their vegetation, and were hunted by the Indians or their predecessors, who made the baskets and pottery; and that they all resorted to this valley among the hills to use the salt-rock laid bare in this spot by the streamlet which yet runs through it, and whose floods have buried them and the salt with the washings from the adjacent heights. The whole appeared to me very recent. Here a geologist can easily determine whether men and mammoths were coeval; whether they preceded "the orange sand" drift period, or whether the mammoth is older or more recent than "the bluff-formation"—a part of the ancient valley of the Mississippi. I am inclined to think that both men, differing in nothing essential to constitute a "type of mankind" from the Cooshattie Indians, and these huge quadru-

* See Plates I., II., III., and Map.

peds used the rock-salt of Avery's Island in an age much more recent than the Deluge of Noah, as fixed by the *short chronology* of Usher. The bones may be older than the baskets and the pottery; but, to my perception, they looked much alike in age. I was unable to separate them chronologically, as they were carelessly heaped upon the surface by the Confederate miners, who were not antiquarians. Future operations upon this interesting spot, conducted with reference to archæology, will throw much light upon it. I was here reminded of the correctness of an observation made by Sir Charles Lyell in regard to the difficulty of ascertaining the relative ages of fossils found in the same localities: "Bones of recent animals, when introduced into the older deposits, may, in many cases, very soon assume the condition of the fossils belonging to those deposits." The chemical action of the elements of the soil will soon assimilate the whole of the materials subjected to it so far as to make them appear of synchronous age.

A very common mistake is made by persons who have only partially examined the subject of American archæology in regard to the antiquity of the aboriginal mounds of the Mississippi Valley, based upon the positions in which they are found, and the appearance of the forests which grow upon them. Except in the bottom of the Mississippi River, they are rarely found near the banks of any stream which are of recent alluvial formation. In the lower part of its valley, or below Cairo, it is not terraced like most rivers, but, in its low, flat, and recently-formed alluvium, varying in width from twenty-five to fifty miles, it shifts its channel from hill to hill, undermining and sweeping away its banks, with the forests or plantations upon them. This work of destruction and renovation is accomplished so rapidly that vessels now navigate its deepest current where forests grew or plantations flourished twenty years ago. In 1839, near the town of Commerce, below Memphis, I saw three large aboriginal mounds undermined and engulfed by it. All things upon its banks rest upon a most unstable foundation. On its small tributaries, the ancient mounds, like the modern edifices of the owners of the soil, are usually built upon one of the terraces called *the second* or *third bottoms*, for the advantages of a rich soil to cultivate, and sites convenient to water, and elevated above the floods, which

cover all the surfaces of the first bottoms. In the course of ages, by the successive erosions and removals of strata of rock from their beds, rivers lower their channels, and leave their ancient bottoms elevated above those more recently formed. Some of these terraces are very old, like the loess of the Rhine and Niagara, and "the bluff formation" of the Mississippi; but because Indian mounds, and the edifices of their successors, are found upon these ancient terraces, it is not reasonable to infer that they are of equal age with the ground they occupy.

It is equally unsafe to base calculations of extreme antiquity upon *the appearance* of the trees which are sometimes found growing upon these tumuli. The forest-trees of all the country east of the Rocky Mountains, which I have examined, are very short-lived, and I have never found one whose age will compare with that attributed to the chestnuts of Sicily, the oaks of England, the cedars of Lebanon, the cypresses of Mexico, or the *Sequoias* of California. Some years ago I examined the rings of a great many trees of different kinds in Mississippi, Alabama, and Texas, in order to ascertain from their relative sizes what had been the character of the seasons, or what great droughts or rainy years had occurred in them during the last two centuries. I was surprised to find that all the forests on soils growing large crops of grass were once prairies, and had covered the earth recently, or since the annual burning practised by the Indians had ceased. I found no oaks, or other trees, *two hundred years old*, except in bottoms and other spots covered with water when the grass is dry, or where it does not grow in sufficient quantities to destroy trees, or to prevent their growth when it is set on fire. But this cause is not sufficient alone to account for the short-lived character of the trees of the forests of these States. The oldest tree I found in a bottom sufficiently sound to display all its rings entire was a white-oak, eleven feet in circumference: this grew upon Limekiln Creek, in Hinds County, Mississippi, in the valley of which are many aboriginal ruins: its age was 257 years. The oldest tree of any kind I examined was the largest long-leaved or pitch pine; it was nine feet in circumference, and 325 years old: it was cut down near Lake Station, in east Mississippi, on the Southern Railroad. The pine-woods produce but little

grass, and they cannot be destroyed by fire; and they are much older forests than those which grow upon the richer lands of Mississippi. In what are termed "the pine-woods" the land is poor, and they contain but few aboriginal remains. The primitive inhabitants, or *mound-builders* of the West, were good judges of land; and, whether they were agriculturists or not, they settled only the richest spots in the Mississippi and Gulf States. In Virginia, where I was born, and in Mississippi, where I live, the red-oak, white-oak, and many other forest-trees, attain nearly their greatest size in fifty years. Two oaks, the one white and the other red, about forty years old, measured each nine feet in circumference. After fifty years' growth, they often show signs of decay; they become hollow, and soon wither, or are blown down by the storms. A beautiful avenue of live-oaks not far from the battle-ground below the city of New Orleans, and one of the most attractive objects on the left bank of the Mississippi, near the spot where General Jackson gained the victory of the 8th of January, 1815, were planted, after that date, and they are among the largest of those evergreens growing in the Delta. In November, 1870, I measured a large water-oak in the yard of the hotel in Amite, Louisiana, and which is much the largest and most magnificent tree in the village; it is about ten and a half feet in circumference. Mr. Bach, the venerable patriarch of the neighborhood, told me that he planted it there about forty years ago. I mention these facts, hoping that they may aid any archæologists who may hereafter attempt to determine the antiquity of the aboriginal remains of our country.

The age of no fossil found in the alluvium of the present Delta of Louisiana can be determined. The average depth of the river is about 100 feet for the lower 125 miles of its course, and its bottom current flows as swiftly as its surface, and the average velocity is about four miles per hour. Opposite New Orleans, the soundings for Harrison's Map of 1847, in the New Orleans Academy of Sciences, showed a depth of from 162 to 187 feet. Mr. Alfred Hennen, who had lived in the city sixty years in 1867, told me that he recollected when the deep channel of the river flowed where Tchoupitoulas Street is now built, in the heart of the business part of it, a quarter of a mile from the present shore. By undermining, and engulfing its

banks, with every thing upon them, logs tangled in vines, and bedded in mud, cypress-stumps, Indian graves, and modern works of art, are suddenly swallowed up and buried, at all depths by its waters, from 10 to 187 feet.* The deep channel then works its way from them, and leaves them beneath a deep soil of inconceivable fertility, which quickly produces above them a dense forest of rapid and short-lived growth; first of cypress, remote from the shore, with willows and cotton-wood next to its receding current; then of live-oak, hackberry, and elm, with a variety of other trees. But the restless and resistless giant soon returns with a sweeping curve, and invades the land of the oaks, and of the cypress also; and undoes quickly all the work of a quarter of a century, or of an age, to do it over again. In 1856, an artesian auger penetrated a cedar-log 18 inches thick, which it had buried 157 feet beneath the pavement of Canal Street. In digging the foundation of the gas-works, among burnt wood, cypress-logs, and materials of all kinds floated from the great valley above, the skeleton of a man was found, and which was buried 16 feet beneath the surface. This created much wonder; and Dr. Dowler, and others who believe the preadamite existence of men in America, decided that he belonged to "the aboriginal American race," and supposed, with Dr. Nott and Gliddon,† that he had lain in that spot 57,600 years! Similar specimens of antiquity may be found, and probably more abundantly, between the present levee and Tchoupitoulas Street, where the whole area, to the depth of more than 100 feet, has certainly been deposited within the period of 60 years. Since the gas-works were constructed, the New-Orleans Academy of Sciences was agitated by a report that, in making some deep excavations at Port Jackson,‡ at a considerable distance from the Mississippi River, and at a depth of 15 or 20 feet below the surface, a piece of wood had been exhumed which had evidently been shaped by "human art," and dressed with tools which indicated the work of a highly-civilized race of men. It was at once decided by the advocates of the preadamite origin of the "autochthones" of America, that these aborigines, who had

* See Plates VI. and XII.

† "Types of Mankind," by Nott and Gliddon, p. 338.

‡ See Plate XII.

inhabited Louisiana 57,600 years ago, were an exceedingly cultivated and highly-enlightened people. Several members of the Academy determined to examine the matter thoroughly, and to ascertain what specimen of ancient human art had been turned up by the spade at Fort Jackson. They found the facts precisely as stated. A large piece of *yellow poplar* had been unburied at a great depth, and a considerable distance from the river—a distance as great as that occupied by the aboriginal mound in the graveyard of Point à la Hache, above the forts. It was squared with a broad-axe, bored with an auger, cut with a handsaw, and was unmistakably *the gunwale of a Kentucky flat-boat!*

Fort Jackson was built after the battle of New Orleans, in 1815; and from 1785 to the present year the Father of Waters has been carefully fossilizing the evidences of the flat-boat trade between the great valley and New Orleans, and burying at all depths, from 16 to 160 feet, and at all distances from his present bed, from one mile to 20, the wrecks of the bodies of the boatmen and of their vessels. This immense mass of alluvium, more than three times the thickness of that of the Nile, is all stratified like it, and the layers are colored differently by the variously-tinted waters of its tributaries, like the Nilotic deposits.

IV. The facts mentioned by Nott and Gliddon, in their work, "The Types of Mankind," to prove that what they term "proximate species" will produce a prolific progeny, such as the experiments of Hellenius in obtaining a fruitful hybrid offspring by crossing the deer and sheep, and instances of the admixtures of animals of the dog-kind and other quadrupeds, do not disprove the correctness of the theory of Humboldt, that *different species* will only generate *non-prolific hybrids*. They only prove that zoologists have committed errors in their classifications of genera and species; and among these errors is the assigning animals, which are only *varieties of a species*, to places in natural history as *species of different genera*. Dr. J. L. Cabell, Professor of Comparative Anatomy and Physiology in the University of Virginia, in 1859, published his able work, "The Testimony of Modern Science to the Unity of Mankind," which embodies an answer to "The Types of

Mankind" so complete that I have thought it entirely unnecessary to notice its arguments in these lectures. Dr. Cabell says (p. 295): "No believer in the unity of the human races has ever committed the absurdity of maintaining that 'distinct species' could, by any possibility, have a *common origin*. They do maintain, however, that *distinct varieties*, no matter how different in type, may breed *inter se* indefinitely; and they hold that the converse is true, namely, that where animals of distinct types are shown to be capable of crossing their breeds without limit, they are thus proved to be mere varieties of one species."

V. *Pangenesia* is the name given to his theory by Mr. Charles Darwin, to account for such facts as the occasional reproduction by individuals of parts of their corporeal substance which they have lost—the likenesses of members, or features in children to their parents, or remote ancestors, and the various resemblances of offspring to their originals. He supposes that every creature possesses countless indefinitely-minute organic atoms, or gemmules, generated in every part of every organ, and which are in constant circulation through the body, and have the power of reproduction. They are supposed to be stored in all generative products.

The idea is not an original one. Something like it was entertained by Buffon, who probably received it from older writers whose minds were exercised about the *atomic theory*, and the incomprehensible beginnings of all existences. Buffon in his "Histoire Naturelle," published in 1749, expresses the opinion that "seminal fluids are extracted from all parts of the body," and he supposes that by their union they form the embryo, each particle taking its due place, and occupying in the offspring a similar position to that which it held in the parents.

St. Augustine supposed that, when God created organic forms, He clothed certain portions of matter with the power to evolve them, or to present them as organized existences at the time or times appointed for their existence by His divine will. De Genesi., lib. v., cap. v.: "Terrestria animalia, tanquam ex ultimo elemento mundi ultima; nihilominus *potentialiter*, quorum numeros tempus postea visibiliter explicaret." The idea conveyed is, that the germs of all animals were embodied

in the first pairs originally created, whose numbers would be developed, and made visible in the successive periods of time. There is nothing in a correctly-stated theory of evolution or development opposed to the biblical account of the creation. The Bible, in presenting to our view Adam and Eve, represents them as embodying in themselves the germs of all humanity; and the races of mankind were successively evolved from them.

VI. *Natural* death entered the world before man was created. All the plants and animals of the preceding geological eras had lived and died before the Androzoic epoch. The death which was entailed upon Adam and his posterity by his transgression was *spiritual*. Jeremy Taylor conjectures, perhaps correctly, that if Adam had not sinned, he would not have lived in his created form forever, but that he would have been changed into some higher form of being, and elevated to a celestial state of existence by a peaceful *euthanasia*, a death without pain.

LECTURE III.

THE ANATOMICAL ARGUMENT.

Prof. Agassiz's Anatomical Argument against the Unity of the Human Race stated and examined.—Eden was not the Original Habitat of all Animals and Plants.—The Causes of Climatic Changes, and their Effects in the Extinction of Species.—The Extinction of Tropical Genera in the Temperate Zones since the Tertiary Era.—Causes of the Alteration of the Isothermal Zones.—Extinction of Species by Chemical Changes of Soil, and the Introduction of New Genera.—Extinction of Some and the Introduction of Others by the Immigration into Wildernesses of Civilized Agriculturists and Stock-raisers.—The Mingling and Preservation of Remains of Successive Generations in the same Localities.—Transformations of Plants and Animals of the same Species into Different Types.—Albinos among Mankind and the Lower Orders of Animals, and the Cause of their Production.—The Colors suitable for the Covering of Hyperborean and Tropical Animals.—Definition of the Word *Nature*.—The Property of the Chameleon possessed, in some Degree, by all Animals, and the Reasons for its Possession.—The Originals of all Animals and Plants not formed and placed in Eden.—How all Living Creatures were brought to Adam to be named.—All Creations are Miracles.—Adam's Knowledge of Religion and Natural Science was a Revelation.—Man is an Animal, affected physically by all the Influences which metamorphose other Animals into Varieties of the same Species.

THE second objection to “the unity of the human race,” which I will now examine, is—

“The anatomical differences between the different races, and especially those which distinguish *the black and white*, indicate a diversity of origin.” Prof.

Agassiz, and other distinguished comparative anatomists, have urged this argument, against what I consider the scriptural theory of the origin of mankind, with great ability.

Agassiz's anatomical objection against the unity of the human race considered.

In one of his lectures, Prof. Agassiz says: "Every part of the world has its peculiar tribes of animals, and all these tribes do not possess such a close relation to *the climatic condition* that their peculiarities give us any satisfactory evidence that they are to be ascribed to the climatic influences in which they live."

It is true that certain localities now contain animals which are found nowhere else. But it is not difficult to account for this. While the Bible asserts that the parents of the human race were placed in one spot, and that their descendants radiated from it and overspread the whole earth, no such assertion is made in regard to the originals of plants and the first pairs of the inferior animals.

All originals of plants and inferior animals not placed in Eden.

They may have been placed originally in widely-separated continents and islands, and in different zones, but we infer that all animals and plants, the different sexes of which will produce prolific descendants, and not *a hybrid* offspring, originated from *the same seed* planted in some one locality, and that the various kinds they now exhibit are varieties of the original species which diverged and ramified from some one spot. While this may be safely admitted in regard to many animals and plants, such as the walrus, musk-ox, penguin, and the arctic moss, whose original home must have been in the frigid zone, or some locality whose climate was hyperborean; and, although it is equally clear to reason that the tapir, the boa-constrictor, the toucan, and the orange and

banana, could only have commenced and continued their existence in the tropics, or regions favored with a warm temperature throughout the year, the argument of Agassiz does not apply to *man*, or to those animals and plants whose organizations or physical constitutions adapt them to changes of climate, to migration or transplantation, and whose forms and colors are varied by their removal from one habitat to another different in soil, atmosphere, and production.* During the past ages of even the Quaternary period, the earth has been subjected to very great climatic changes, produced by various agencies which are but little understood. Some of these causes are *telluric*, such as earthquakes and volcanic agency connected with the action of the central fire, and others, as scientific discoveries shall be advanced, may possibly be traced to the physical condition of the sun and our sister planets, and even to astral bodies more remote, and their *uranic* influences upon our globe.

Elephants, rhinoceri, hyenas, and other animals, now found only in the torrid zone, or semitropical regions, have existed since the Tertiary era, and within the Quaternary, in England, France, and other parts of Europe, where the climate is now too cold, and the habitats of the quadrupeds now occupying the localities where their remains are entombed are entirely unsuited to the wants of these denizens of the

* See Note I.

warmer belts of the globe. Although they belong to extinct species, like the *Elephas primigenius*, and some of them, like the brown and long-haired mammoth of Siberia, and the gigantic fossil elk, may have been formed for the endurance of the intense cold of northern winters, yet they required for their support a luxuriant vegetation, and forests abounding in all the food necessary for the support of such immense mammalia as are now only found in realms free from snow and freezing winds. Extinct kinds of the same *tropical genera* have been found imbedded in recent marshes, and the alluvium of existing rivers, in New York, Kentucky, Missouri, Louisiana, and Texas, and, in fact, over the whole area of the United States; and, while it is probable that some of them were contemporary with men, it is certain that they all were in existence and disappeared in a period very recent. In addition to the other causes of great climatic changes, usually enumerated, it may be supposed that the earth has been subjected to various oscillations upon its axis, and that the position of its poles has been varied. We may imagine many such oscillations, and it is easy to demonstrate that the sinking beneath the sea-level of a vast area of land, like a third of Asia, including the Snowy Chain of the Himalaya Mountains, and all the tropical regions of South America, with the ice-clad ranges of the Andes, attended with a corresponding elevation of the earth's crust of

Extinct mammalia and birds since the Tertiary epoch.

Extinct tropical genera of the Quaternary in the temperate zones.

equal bulk and weight, but only in one hemisphere, and displacing the waters of an ocean, not under the equator, but north or south of it, would change the

Causes of the alteration of isothermal zones.

position of the poles, and revolutionize the condition of the whole surface of the planet. Such an exertion of Plutonian force, whether suddenly or gradually made upon the earth's crust, would change the centre of gravity; and to restore the equilibrium of the orb in making its diurnal revolutions upon its axis, and its annual circuit around the sun, the poles and zones would all be changed, and conformed to gravitation's law. Its isothermal belts would all be altered, and all animal and vegetable life would be destroyed by heat or cold. But apart from the consideration of such general changes of the whole condition of the earth as have been effected by the agency of its central fire, set in motion by forces unknown to us, and exerted in sudden and awful convulsions, or operating silently and almost imperceptibly through revolving centuries, and which mark the grand divisions of *the geological column* in bold lines of separation or indistinct shades, but forces all directed by *one unerring and omnipotent hand*, even in our own day, we behold the process of the extinction of various kinds of animals and plants in certain localities, and the introduction and

Causes of the extinction of species in their natural habitats.

propagation of others brought from distant regions to occupy their places, going on continually. In addition to the variety of causes which I have enumerated, there are

others, not so striking as these great telluric changes, but which are producing incessantly mutations in animal and vegetable life. Men, beasts, birds, reptiles, fishes, insects, and plants, all require certain food suited to their several natures. When that is wanting where they live, they die, or migrate to other places to find it. The various orders of plants thrive successively in different localities. One series of trees exhaust the *alkalies* of the soil, and perish for the want of them. They leave their remains preserved in the alluvium with which the floods cover their graves. Another series, which require *acid* food, take their places. Thus in Denmark the remains of aborigines are found buried amid the trunks of *pin*es where none now grow, but which have been succeeded by forests of beech-trees. The chestnuts of the forests of Virginia, east of the Blue Ridge, and of the Mississippi, die, and pines grow upon their remains. They consume the acid which poisoned, or was rejected by, their sylvan predecessors, and wither and turn to dust Old, worn-out fields which once produced luxuriant crops, and from which the carbonates and phosphates have been exhausted, are abandoned by agriculturists, and washed into gullies of barren and unsightly red clay. But the black locust, the wild-pea, and various other papilionaceous plants, like the common white and red clover, fatten upon this poor land,

Extinction caused by chemical changes of soil.

Introduction of new species.

Pine-forests succeeding those of oaks and chestnuts.

Acid and worn-out lands restored by papilionaceous plants.

absorb and change its deleterious elements, enrich it with their decay, and restore its fertility for the production of crops of food for man. Thus the divine Creator, in His own laboratory of Nature, works the wrecks of vegetable life into new chemical compounds, to feed the floral generations which spring from the seeds of others which have perished, or which are planted by man, or which have been brought and scattered there by the beasts, birds, waters, and winds. Forests give place to grassy prairies, and they are turned by the plough into cultivated fields. Drought, fire, agriculture, and war, cease their ravages. The land rests in desolation. But a divine Sabbath broods over it; and, under its wings, new orders of deciduous and evergreen trees and flowers spring from the soil, and clothe in glorious array the mountains and meads. These revolutions which affect the vegetable kingdom, afford us a striking analogy to those which mark the history of mankind, and point our hopes beyond its end. Generations of plants pass away, and are succeeded by others; but if they perish in the winter, and the wailing winds spread winding-sheets of snow upon their graves, the spring returns to rend their shrouds, and vivify the germs of life they conceal, and displays their new-born glories as the fragrant types and lovely mementos of *the Resurrection*.

Natural history teaches us that many animals have become extinct in places where they once flourished. In the island of Mauritius, the dodo was

found by the navigators of the sixteenth century. This grotesque and gigantic bird was brought by them to Europe, and a specimen of it is yet preserved in the British Museum.

The dodo of Mauritius succeeded by barn-yard fowls.

But it is entirely extinct, and its ancient habitat is now occupied by barn-yard fowls brought from France by the colonists. All the original thirteen States which formed the Republic of the United States of America, abounded with elk, buffalo, and various wild animals, which have disappeared with the

Extinction of wild animals by civilized immigration.

Indians from the Atlantic coast, and are now only found in the remote, uninhabited, or sparsely-peopled wilds of the continent. They have been exterminated in vast areas now settled by civilized people, who have introduced multitudes of various domesticated quadrupeds, which are changing their types, and adapting themselves, under climatic and other metamorphic influences, to their new abodes. The different quadrupeds multiply in certain places like plants, and then disappear, and other species thrive upon the spots where they perished, or from which they emigrated. If their bodies are buried in saltpetre caves, or in

Preservation of remains.

earth which possesses antiseptic, petrifying, or embalming properties, their skeletons may be preserved for many ages; but if they are left upon the surface of the earth, as is generally the case, their bones are devoured by other animals, or they soon decay and mingle with the dust. In 1841 I saw a wild prairie

of Western Texas, upon the grass of which herds of buffalo were grazing, and whose surface was thickly strewn with the skeletons of these animals. Twenty years afterward many domesticated horses and tame cattle were grazing among a few of the skulls of the buffaloes which still remained, but the

The prairies of the Indian and buffalo transformed into the home of the white man and tame cattle.

vast herds of these quadrupeds had long since disappeared. At present, in that region, all has been changed by the occupation of it by civilized planters and stock-raisers. The wild beauty and grandeur of the prairies have faded away, and the lovely carpet of indigenous grasses and flowers has been changed into fields of cotton and corn. The herds of horses and cattle brought there by the immigrants have greatly multiplied, and, although of the same species, they differ greatly, not only from their progenitors of the older States of the Union, but from the wild horses and cattle of Texas, which came originally from Spain, through Cuba and Mexico. A century hence, a naturalist may explore the caverns and alluvium of that region, and find the prairies still cultivated, and supporting the descendants of these tame herds, and their bones mingled with those of the buffalo and the remains of the Mexican horse and the wild-cow of Texas. If he reasons, like Agassiz, that "every part of the world has its peculiar tribes of animals," he may erroneously conclude that all these *genera*, the living and the dead, descended from parents originally created

Mingled fossils for future investigation.

and placed upon these prairies, where the food, climate, and all the peculiarities of the habitat, suited their condition. Yet we know that not a horse or cow was upon the whole American Continent until it was settled, in the sixteenth century, by the colonists of Spain. They and succeeding immigrants from Europe introduced horses and cattle of various kinds from "the Old World."

In a very few years the bison, the wolf, and the puma, and all the tribes of beasts and birds indigenous to the United States, which are dangerous to man, or valuable for food or clothing, will disappear with the aboriginal Indians, unless the avarice, ambition, folly, and rage of our directors of public affairs, shall prevent the prosperity of our country, and blast its hopes by plunging it into ruinous wars, which may cause it to relapse into its primeval condition. It is a melancholy reflection that some of the fairest, most fertile, and populous realms of Asia, including the spots where the patriarchs of nations dwelt, where our religion was planted, and from which all the light of

The savages and wild beasts of *Shinar*, the ancient source of humanity.

civilization emanated, have been transformed by *war* into uninhabited wastes and cheerless deserts. Where ancient kingdoms and republics flourished, the descendants of the conquerors and the conquered are nomadic hunters and roving bandits, who prey upon one another and upon wild beasts descended from animals domesticated by their ancestors; and they are as ignorant of the magnificent ruins around

them as the wild Indians of our continent are of the vast *tumuli* of the Mississippi Valley, and those of the Colorado of the West. Such fearful changes have marked the history of every part of the world occupied by the inferior animals, and all the varieties of the human race. Savage hunters and rude warriors give place to cultivators of the soil, to manufacturers and merchants. Marble temples and palaces, and cities ornamented with architectural beauty, occupy the sites of aboriginal tents and perishable huts. Tribal governments are swallowed by empires. They are overturned by republics. They sink into anarchy. Moral darkness and despotism envelop the light of civilization. The midnight reigns until the day dawns again and brightens into the effulgence of the noon of a new era, whose enlightened sons dig into the mounds, and explore the tombs and ruins around them and beneath their feet, to ascertain *what has been*, and to conjecture *what will be!* But—

“How little do we know *that which we are!*

How less what *we shall be!* The eternal surge
Of time and tide rolls on, and bears afar

Our bubbles; as the old burst, new emerge,
Lashed from the foam of ages; while the graves
Of empires heave, but like some passing waves.”

The argument *that diversities of form and color, and the striking anatomical differences which distinguish the races of men, prove a diversity of origin*, is entirely worthless in the estimation of a naturalist

who has observed that greater varieties of hue and shape, and stronger dissimilarities of all kinds, characterize plants and inferior animals known to be of the same species. I will take a few examples, from the departments of the vegetable and animal kingdoms, of individuals with whose peculiarities we are best acquainted; and Transformations of plants into different types. show that transplantation, cultivation, change of habitat, and other influences, have wrought greater transformations and wider variations between some of these species, known to have sprung from the same originals, than "climatic conditions," and all other agencies combined, have produced in the several types of the human race. The transmutation in the size, form, and color, and the seasons of maturity and term of life of well-known plants of the same species, is progressing, continually, in our sight. The variances caused by removal from one latitude to another, and by culture or neglect, are greatest among those which are most widely diffused over the earth, and which are the most useful as food for man, such as some of our garden vegetables, the cereal grains, and cultivated fruits.

The common *maize*, or Indian-corn, is a plant indigenous to America. The European discoverers of the continent found it cultivated by the aborigines in Mexico and Virginia. The Zea mays. None of the narratives of the first explorers and colonists from Europe which I have read describe varieties of this useful plant. It was probably the white

kind still raised by the Mexicans, and the Pimos Indians of the Gila River. But it has been taken to Europe, and brought back to America. In the Northern and Southern States it has been subjected to many experiments of scientific agriculture in different soils and climates. The effect has been to transmute it into various kinds, which ripen at different periods, from six weeks to five months, from the time of planting. Some kinds have been dwarfed into pigmies, others have been developed into mammoth forms. Some varieties grow upon little stalks two feet in height, whose ears are not more than six inches in length; while others, upon the same soil, will grow sixteen or twenty feet high, and produce ears a foot long and three inches in diameter. Some kinds are ornamented with white silks, and others with various shades of red; and the different sorts exhibit grains of all colors, from snow white to jet black. Yet the most diverse of these varieties, like the *little black pop-corn*, and the *mammoth Mexican white flint*, can be mixed by cultivation, and the admixture will generate *a new productive variety*, different from both parents. This new variety, if transplanted in different countries, and subjected to various processes of culture, will produce yet other *new kinds*, all of which will be *productive*, and susceptible of multiplied changes. Botanists decide that nothing in the diversities of this plant, which I have mentioned, proves that any one of the numerous varieties is a different species from that cultivated by the Indians

before the discovery of this continent by Columbus. In 300 years this single plant has multiplied into more varieties, and these varieties are less like one another than the millions of mankind in both hemispheres who use it for food.

The original habitat of *wheat* has not yet been discovered. At present it is not indigestible to any soil. It is the only plant, *Triticum.* used as food by man, which seems to have been cultivated by him from the beginning. It bears the same relation to the plants appropriated by mankind from the earliest periods of history, which the camel does to the quadrupeds reared for the use of nations. Neither the wheat, nor the camel, has ever been found in a wild state. The several races, in their migrations, have carried with them the wheat and sowed it in various climates; and, in the process of its adaptation to different soils and seasons, it has been developed into many kinds. The wheat now grown in California, and which is reported as attaining sometimes a height of ten feet, while the stalks are half an inch thick, bears but little resemblance to its dwarfish progenitor, brought from Sweden by Captain Sutter many years ago. The wheat and the camel never found wild.

The *palma Christi*, or *castor-oil* plant, seems to grow indigenously in the Colorado Valley, near Austin. It is possible that the original seed of it may have been planted by the Spanish priests in the last century, before the destruction of The *palma Christi*.

their missionary establishment, upon the San Saba River, by the Comanche Indians, and that these plants may have been brought down by the floods of the Colorado, and imbedded in its alluvium, long before the occupation of Western Texas by immigrants from the United States. But, whether it has been imported, or is indigenous in that country, it attains gigantic proportions; and, instead of being an *annual plant*, as it is in the Northwestern States, it has become *perennial*. In the city of Galveston, in 1851, I saw one growing in the back-yard of the Tremont Hotel, ten years old, and a foot in diameter, and at least twenty feet high. It had grown into a beautiful ornamental shade-tree, with a dense foliage, and it was laden with luxuriant bunches of castor-beans. In Tennessee and North Carolina the *common cotton* is a small annual plant. In the

Gossypium.

Delta, and on the high coast-islands of Louisiana, it is not always killed by the frost, and the roots remain green through the milder winters, and send forth new shoots in the spring. The original species of all the varieties cultivated in the Southern States are *perennial trees* in tropical America. The original habitat of the Irish potato is Peru, where it grows in elevated valleys, almost above the snow-line of the Andes. It is also said to grow on the loftiest plateaux of the Cordilleras of Costa Rica. In its native state, it is the poisonous *Solanum*. It belongs to the same class of plants as the *tomato*, *egg-plant*,

Solanum tuberosum.

and others which contribute largely to the luxuries of the tables of all classes of the civilized nations of the Old and New Worlds. Its introduction into Europe is usually attributed to the accomplished knight and scholar, Sir Walter Raleigh, in the reign of Queen Elizabeth; but whether he found it in North Carolina, or somewhere on the coast of Central America, is unknown. Cultivated

into an indifferent article of food by the Peruvians, under the dominion of the

The Irish potato introduced into England by Sir Walter Raleigh.

Incas, carried to Europe, and brought from Ireland to the United States, it has become, in parts of this country, as it is in Sweden, Germany, and other countries, an important article of consumption. In New York and San Francisco, Caucasians, Mongolians, negroes, savages, and civilized men, white, black, and yellow, supply themselves with food from varieties of this vegetable, exhibiting more shapes, sizes, hues, and other physical diversities, than are displayed by all the five human types of Blumenbach, with their numerous intervening forms and shades. Readers of the Bible, not well versed in natural history, and who never saw the common garden mustard, except in the gardens of Old or New England, are surprised to learn from it that in Palestine this little herb of the north-temperate zone sometimes attains the dimensions of a tree whose branches furnish lodgings for "fowls of the air." Dr. Adam Clarke, a learned antiquarian and philologist, and who has writ-

Sinapis alba et nigra.

ten a valuable commentary on the Bible, in his notes on Matthew xiii. 31, 32, gives this pertinent illustration of our subject. [The mustard] “‘becometh a tree.’ That is, it is not only the largest of plants which are produced from such small seeds, but partakes in its substance the close, *woody texture* [of trees], especially in warm climates, where we are informed it grows to an almost incredible size. The Jerusalem Talmud, tract *peah*, fol. 20, says: ‘There was a stalk of mustard in Sichin from which sprang out three boughs, one of which, being broken off, served to cover the tent of a potter, and produced three *cabes* of mustard-seed. Rabbi Simeon ben-Chalapa said: “A stalk of mustard-seed was in my field, into which I was wont to climb, as men are wont to climb into a fig-tree.”’ This

The mustard-tree of Rabbi Simeon ben-Chalapa.

may appear to be extravagant, and it is probable that, in the case of *the three cabes of mustard-seed*, there is considerable exaggeration; but, if it had not been usual for this plant to grow to a very large size, such relations as these would not have appeared even in the Talmud; and the parable of our Lord sufficiently attests the fact. Some soils, being more productive than others, and the climate much warmer, raise the same plant to a size and perfection far beyond what a poorer soil and colder climate can possibly do. Herodotus says he saw wheat and barley, in the country about Babylon, which carried a blade full four fingers in breadth, and that the millet and sesamum grew to an incredi-

Big wheat of Babylon.

ble size. I have myself seen a field of common cabbages in one of the Norman isles, each one of which was from seven to nine feet in height, and one, in the garden of a friend, which grew beside an apple-tree, though the latitude of the place is only $48^{\circ} 13'$ north, was *fifteen* feet high, the stem of which is yet remaining (September, 1798). These facts, and several others which might be added, confirm fully the possibility of what our Lord says of *the mustard-tree*, however incredible such things may appear to those who are acquainted only with the productions of northern regions and cold climates." Sir Charles Lyell supposes that the cabbage, cauliflower, and their numerous varieties, have all been produced from the *charlock*, a bitter and useless *weed*, which grows about the salt-marshes of England; and Hugh Miller asserts that all the kinds of valuable apples which adorn our orchards with hues of crimson and gold, are descended from the little green and sour *wild-crab*. The largest tree of the forests of Virginia, Kentucky, and Tennessee, *the yellow poplar* (the *Liriodendron tulipifera*), in Australia is dwarfed into a small shrub; while the *alder*, a little bush on the banks of the streams of the United States, in that continental island is one of the tallest trees of the woods. The common *blackberry* was very abundant in England in the time of Shakespeare, who makes Falstaff tell Prince Henry that he would not give him a *reason*

Cabbages fifteen feet high.

The charlock the parent of the cabbage.

The apple.

The *Liriodendron* and *Betula*.

upon compulsion, if *reasons* or *raisins* were as plenty as *blackberries*. It is doubtful whether it is indigenous to this continent. It may have been introduced into Virginia and other Atlantic States, with the *raspberry*, by the early British colonists. There were none in Texas west of the Brazos so late as 1840, although the dewberry occupied the country on both sides of that river. The blackberry was abundant in Eastern Texas, and the western limit of its growth that year was Shannon's Prairie, about seven miles southwest of the town of Montgomery. In 1859 I observed that it had extended its habitat more than one hundred miles farther southwest, and had reached the valley of the Colorado. Plants migrate and change their colors and forms like mankind. While I resided in the city of Austin, Mrs. Elizabeth G. Johnston, the wife of General Sydney Johnston, made an experiment upon the *dewberry*, which grows wild in that neighborhood, and, by cultivating it in her garden, so far changed the plant that it was greatly improved in the size and flavor of its fruit, which ripened much earlier than the wild variety from which it was taken. In the valley of the Tennessee River, in North Alabama, the common *blackberry*, especially when cultivated, often becomes *white*. The French botanists have long since learned the art of changing plants like the wild roses and dahlias, whose corollas contain only single circles of petals ; and,

The blackberry
an imported fruit.

Dewberries im-
proved by cul-
tivation.

White black-
berries of Ala-
bama.

by planting them in different soils, by manuring them with various composts, and by budding, grafting, mixing their pollens, and other processes, they make them produce *double flowers* tinted with all the hues of the rainbow. They also give to the wood of trees any color they wish by furnishing their roots with proper paints, mingled with manures, which are absorbed by their spongioles. But it is unnecessary to produce more illustrations from the vegetable kingdom, which furnishes proofs, almost numberless, of the metamorphoses of plants produced by agencies analogous to those which cause variations in the physical nature of man.

Single flowers
doubled; their
colors changed
by culture.

If we turn from the vegetable to the animal kingdom, we find the same causes of transmutation which affect plants changing continually many well-known *genera* of beasts and birds into widely-different varieties of the same species; and affecting equally the *animal man*, their lord—the *most migratory and omnivorous* of all the living creatures of earth. As man is an *animal* whose anatomical structure and chemical composition are much like those of other *mammalia*, the logical inference is conclusive that the same or similar agencies which have varied the types of the identical species of the inferior animals, have produced the differences which distinguish the races of men.

Among the American quadrupeds whose history is best known to naturalists is the *wild-horse*. No

animal of *the horse-kind* was found upon this continent by the European discoverers and first explorers. The aborigines had no knowledge of the horse prior to the year 1520, when Cortez carried some of the horses introduced into the

island of Cuba from Spain to Mexico when he commenced its conquest. They

were reared by the Spanish conquerors in every settlement they made in North and South America; and, in the course of centuries, many of them have gone wild, and multiplied until they have overspread the grassy prairies and pampas of both continents south of Red River, and north of the Straits of Magellan. But they are very unlike their Spanish progenitors and those of other countries. They have changed into a peculiar type, which resembles that of the horses of the Don Cossacks. Those of the Ukraine, and the grassy plains of Tartary, occupying a similar habitat, have been transformed by its peculiarities into varieties which are like each other and those of Texas. The cattle of Spain, transplanted in her American colonies, have also run wild, and multiplied into large herds in the same regions where the *mustangs* abound. They also have become very dif-

The wild-cow of Texas.

ferent from the original stock imported from Europe, and from the domesticated varieties of every other country. They have reverted almost entirely to the original type of the wild black cattle of Europe. It has been observed by Sir Charles Lyell and others, that the *cow* is the only animal

known to naturalists which reverts to its original species after having been changed by domestication into a type or variety. The cattle of Texas, descended from those

The cow the only animal which reverts to its original type.

brought from Spain, are usually very large, tall, and long-horned; and, although not good milkers, they are fine breeders, and better for stock-raising than the imported and blooded cows, which require feeding and other attention. Their udders also contain so much milk that their calves cannot exhaust them; consequently, unless they are milked, they become diseased, and the calves die. But the Texan cattle will rear their young in a wild state, and multiply rapidly. The oxen, owing to their size, strength, and ability to endure heat and thirst, make the most valuable animals for draught. In a wild state, they are dark brown, with black circles around their eyes, and black backs, legs, and feet; the extremities of the horns, ears, and tails, are

Wild-cattle described.

also black, and the color of their herds is as uniform as that of the greater herds of buffalo. But when they are domesticated, like the wild turkey, or duck, and mallard, after a few generations, in many instances, the hue which they wear in a savage state disappears, and they become as "ring-streaked, speckled, and spotted," as Jacob's portion of Laban's herd. If any of them wander off into the wilderness again, their descendants in a very brief period lay aside the party-colors of their domesticated kindred, and assume the savage uniform of their wild ancestors.

In this the *mustangs* do not resemble them. A wild herd of these fleet and beautiful animals exhibit all the colors which are worn by the horses of every land, although they maintain much uniformity of shape. Man resembles the mustang and many other animals more than the cow in his *metamorphoses*. His descendants are changed into forms and hues which mark their ever-varying types; but so far history has given us no satisfactory evidence of the retrocession of any portion of the black or yellow races to the type of the Caucasian, which seems to be the original. The people in Sweden called *Tartars*, and who are the descendants of Scythians who were mingled with the white-skinned and yellow-haired Goths many centuries ago, are still like North-American Indians and Mongolians in form and color, although they have been subjected for many ages to the influence of the climate of Scandinavia.

The tendency of domestication, accompanied with migration from one latitude to others warmer or colder, to produce varieties of species, is manifested in birds as well as beasts. The preternatural whiteness of *albinos* is produced by a diseased condition of that *stratum* of the skin called the *rete mucosum*, in which the coloring matter is found which gives to mankind their different complexions. When by disease the skin becomes incapable of secreting the pigments which color them, they become albinos. While the human albino displays

The original
type of man.

Swedish Tartars.

Albinos. Their
cause.

a disgusting and hideous pallor, instead of the agreeable tints of youth and health, the coating of beasts and birds, similarly affected, is usually snowy white. The eyes of all animals, whether birds, beasts, or men, classed as albinos, are of a pink color, which harmonizes well with the Pink eyes. spotless white of the arctic rabbit, or the pale yellow of the fox and bear of the frigid zones, but is repulsive when presented by any variety of the human race. The fact that there are *albinos* among birds and beasts, as well as among men, no matter what may cause the peculiarity of their "natural coverings," furnishes an additional proof that the skin and hair, and the whole anatomical structure of *man*, are subjected to the same *metamorphic causes* which vary the plumage, the fur, and the whole anatomies of the orders of inferior animals. The intense cold of the frigid zones may so affect the skins of animals, especially those whose original habitat was The *rete mucosum* affected by cold. in a warmer latitude, as to render the *rete mucosum* too torpid to secrete coloring matter. The greatest number of *albinos* found among the population of the United States are full-blooded The torrid zone the original habitat of albinos. descendants of negroes from tropical Africa. It is a subject worthy of the investigation of naturalists to ascertain the cause of this. Is the transformation of the *blackness* of the skins of these negroes into preternatural *whiteness* attributable to the effect of a climate too cold for their normal condition? Whatever may be the cause, the effect

is certainly beneficial to any portion of the human race, or to any inferior animal, forced to exchange a home in the torrid zone for a residence in the polar regions. *White* is the proper color for the clothing of all hyperboreans. Albinos see better in twilight and night than

Reflecting colors
proper for hy-
perboreans.

in the light of the vertical sun at noon. *Pink* is the color which Nature has given to the eyes of animals which live through the long wintry nights of the frozen zones. All the orders of animals, beasts, birds, fishes, reptiles, and insects, seem to possess the property of the chameleon to some extent; and suddenly or gradually change their colors to suit their climates and circumstances of life. Those which inhabit the colder latitudes become white in winter, and turn brown or leaden gray in summer. Others, in the regions of perpetual ice and snow, retain a non-absorbing hue of pure white, shining pale yellow or glittering blue. Even as far south as latitude 30°, the deer and panthers indigenous to Texas and Louisiana are covered in July and August with reddish-brown hair; and in the months of winter, when the icy blasts from the Rocky Mountains prevail in those States, they are clothed in gray. Contrary to our sanitary ideas in regard to dress, Nature clothes the arctic fox and polar bear in snowy white and pale yellow, and the snow-bird and Canada goose in leaden blue and gray, to reflect the cold of the atmosphere, and to retain the heat generated within their bodies; while she

Absorbing col-
ors the best for
tropical animals.

dresses the African negroes, Hindoos, Malays, lions, monkeys, flamingoes, parrots, and all the living creatures inhabiting the torrid zone, except a few which can readily cool themselves in water, in black, buff, brown, green, and red, which are what painters term *warm* or absorbing colors. We wear *white* in summer, to keep us cool, because it looks cool; and *black* in winter, because it looks warm; but well-conducted chemical experiments will doubtless prove that Nature is right, and we are wrong in this. I use the term *Nature*, not as signifying a God, or an agent acting blindly or rationally, and independent of the one great Creator, Law-giver, and Supreme Director of the universe; but

Definition of Nature.

I mean by the word something *natus—born of Him*, and created by Him—the *system of the creation visible to us, and connected with us*, with all the motive powers, forces, and agencies which affect it. In this reverent sense, we may safely assert that Nature adapts animals to the conditions of climate by coloring scientifically the coverings of their bodies, and by forming them for absorbing or reflecting the rays of heat. Another provision of Nature to effect the same adaptation to the climatic condition in which they are placed is, the involuntary power their skins possess to shed their feathers and down, and their hair and fur,

The uses of down and fur.

to furnish the nests and lairs for their young, and to cool their bodies in the heat of summer. These non-conducting substances cover them again as the

winter approaches, and enable some birds and beasts, and the inhabitants of the shores of the Polar Ocean, who are clad in their skins, to endure the severest cold of their frozen clime. *This chame-*

The property of
the chameleon
possessed by
other animals.

leon property is furnished by Nature for another reason. Various animals, including *birds, beasts, reptiles, fishes, and insects*, have their colors changed to harmonize with the scenery of their habitats, or they select habitats suited to their colors, to enable them to conceal themselves from their enemies, or to help them to seize their

Ancistrodon con-
tortus — (copper-
head snake).

prey. The *copper-headed moccasin*, with a yellow body mottled with brown, with a green tail, seeks a yellowish-brown ferruginous soil, and crawls or coils among bunches of grass and dead leaves, and is rendered almost invisible by the objects about it colored like its scales. The black

The tarantula.

tarantula of Texas abounds among the half-burned logs and charred bodies of the trees of the islands of timber which dot the great prairies, and which are blackened by the annual fires which consume the dry grass. The small, fur-covered leaping spider, which, like the tarantula, makes no web, resorts to old, unpainted fence-rails to find a home suited to its gray color; and the common gray-banded lizard seeks the same locality for a similar object. The many kinds of rabbits and partridges can hardly be distinguished, by the eye of the most practised hunter, from the dead sticks and dried leaves and grass in which they hide from their pursuers. The

fish called the *trout*, improperly, in all the South-western States, and two varieties of which are found in the clear streams of Western Texas, is a fish of the *perch*, and not of the *salmon* kind. In the Colorado River, when the water is transparent, it is beautifully colored to suit the green algæ and water-plants of various kinds, and the many-tinted rocks and pebbles which form the beds of its rapids, or wall the green depths of the pools of that rapid stream. Its back is greenish brown, and, underneath, it is silvery white, with sides mottled with brown and gray, and so tinted throughout its entire coating, to suit the water-scenery about it, that it becomes invisible to the most experienced angler when it ceases to move. I domesticated this and many other kinds of fish taken from the Colorado, and placed in a clear pool formed by Nature and improved by art to make an excellent fish-pond. But the white cretaceous rocks which surrounded it and formed its bottom were covered with a dark-colored moss, and the growth of the water and the shadows of the trees and cliffs, with other peculiarities of their new abode, seemed to make a change of color necessary for them. In a few weeks they all changed their hues, like chameleons, and adapted their dress to harmonize with the tints of its surroundings. The *blue* forked-tailed catfish turned almost jet black, and both varieties of the Colorado bass seemed to be transformed into the *black bass* of Tennessee.

*Centrarchus.**Cattus ceruleus.**Centrarchus obscurus.*

It is more difficult to give a reason for the infinite variety of colors which are assumed by horses, cattle, hogs, goats, dogs, barn-yard fowls, and all the kinds of animals taken by man from the wilderness and tamed for his use. It is astonishing how rapidly these singular changes are wrought in those which have been very recently subjected to our dominion. The *wild-turkey* is an *American bird*. It was found wild on this continent when it was discovered by Europeans. No mention is made of it in ancient history. It is possible that it may have occupied parts of the Old World, and disappeared from them like the dodo. But it is more probable that the original pair were first placed by the Creator *in America*, than that they were planted with Adam and Eve in Eden, and there is nothing in the Bible opposed to such a supposition. When the Bible asserts (Genesis ii. 19): "Out of the ground the Lord God formed every beast of the field, and every fowl of the air, and brought them to Adam to see what he would call them, and whatsoever Adam called every living creature, that was the name thereof," whatever it means I certainly

All animals not
formed out of
the dust of Eden.

believe will be found to be true when the meaning shall be ascertained. But what is the meaning of this text? It asserts that all animals were formed "out of *the ground*;" but it does not assert that they all were fashioned from *the dust of Eden*. It also says that they all were brought to Adam, and were named by him. But does the expression *all* include only those whose

original habitat was the neighborhood of Eden, those of the Continent of Asia, of the entire Eastern Hemisphere, or of the whole world? If the animals, including the birds and beasts of the entire globe, were brought to him, then the penguins of the Falkland Islands, the seals of Cape Horn, black swans and kangaroos from Australia, toucans and tapirs from Brazil, pheasants and tigers from Hindostan, and walruses and polar bears from the ice-cliffs of Greenland, with elephants and ostriches from Africa, and buffalo and wild-turkeys from North America, must have been congregated before him. If the expression "every living creature" embraces hippopotami, crocodiles, boa-constrictors, and whales, the most credulous and unreasoning will be puzzled to conjecture how they were brought together *materially*, as some people understand it. Was the vast multitude congregated in flocks and herds before Adam's *natural eyes*, or were they presented to his *mental perception*? *All things in the beginning were necessarily miracles.* Adam's creation, as all creations are, and must ever be, *was miraculous*. Nothing in his physical or spiritual nature was *hereditary*. His wisdom and knowledge, his strength of body and mind, his perceptions and passions, all were *created*. Nothing belonging to his nature or his faculties was inherited from ancestors, developed by exercise, or improved by experience. As the first man was *a creation*, his bodily strength, like his wisdom or *mental*

How all animals were brought to Adam to be named.

All first works miracles.

power, was created with him, and *his knowledge*, like *his religion*, was a revelation. God's

Adam's knowledge not acquired, and not hereditary, but revealed.

ability to work miracles is boundless; but it is not necessary, in order to interpret

this text properly, to suppose that He brought *bodily* the walrus from Baffin's Bay, the whale from the Sargasso Sea, the tapir from Brazil, the elephant from India, the condor from the Peruvian Andes, and the ostrich from the Desert of Sahara; that He made each one actually walk before Adam in the garden of Eden, or fly palpably in its fragrant air; and then sent out from that spot, in the patriarch's sight, all the countless herds and flocks to their distant destinations in the four quarters of the earth. It is reasonable to suppose that they were distinctly brought to his *mental vision*—brought *intelligibly* to his *perception*, and made a part of his knowledge. They have been *brought unto us* by our study of natural history, and we have been made acquainted with their names and natures, in the ordinary way, and not *miraculously*, as Adam was. The Rev. Thomas Scott, in his commentary on this text, remarks: "Adam seems to have been vastly better acquainted, by intuition, or immediate revelation, with the distinct properties of every creature, than the most sagacious observers since the fall have been by study." Reli-

Religion and science both revealed to the first man.

gion and science, pure and perfect, were both, without a doubt, revealed by the Creator to His pure, perfect, and sublime creature, man, made in his own image. All knowl-

edge, but the terrible knowledge of evil, was imparted to his luminous and godlike mind. But, with the fall of our first parents, the heavenly illumination was darkened. Much of that which has faded from the human mind has been regained. We are cheered by the hope, which the divine revelation inspires, that, through the instrumentality of *the second Adam*, all the light which illumined the soul of the *first* will fill the minds of his fallen but redeemed descendants; and that we, at last, shall know as we are known, and see as we are seen.

The first pair of wild-turkeys known in England, it is said, were carried from Virginia by Sir Walter Raleigh, and presented to Queen Elizabeth. It is probable that others were introduced, at different periods, into Holland, France, Spain, and other European countries, by their colonists and exploring voyagers. They have been changed into as many varieties as are exhibited by all the aboriginal races of men. They are now of all colors, from jet-black to snow-white, and the domestic varieties differ greatly in form and size.* But they are all inferior to their original type, and have lost the activity, the elegant symmetry, and the iridescent plumage of the graceful, fleet, and timid tenants of the American forests. I will close my illustrations of metamorphoses of the inferior animals, analogous to those which affect the human races, with those which we know distinguish

The first turkeys in England carried by Sir Walter Raleigh.

* See Note II

the history of the turkey. In regard to the differences of form and color between these races, I can safely assert that they are no greater than those which characterize the descendants of a single pair of these birds carried to Europe about 270 years ago.* It is not my purpose to attempt to demonstrate precisely the chemical agencies which are employed by Nature in effecting the transmutations of form, and the color and texture of the feathers of birds, and the hair, wool, and fur, and the complexion of the skins of quadrupeds, *quadrumanæ*, and men; although it will not be an impossible task for any worthy successor of Davy and Faraday to explain the whole process of these transformations, which are caused by light, heat, and electricity—atmospheric influences, or by food taken into the stomach, and wrought, by that wonderful laboratory within every animal of the higher orders, into bone, muscle, and cartilage, blood, and skin, and the coloring matter which adorns its complexion, and shades its defen-

Man, an animal affected by all the influences which metamorphose other animals of the same species.

sive armor against heat or cold. Whatever experimental science may demonstrate the causes to be, and by whatever mode their effects are produced, we reasonably conclude that they have accomplished changes as wonderful in the multiplying descendants of Adam dispersed over the earth, living in all climates, and feeding upon all kinds of animal and vegetable food, although these transmutations may now be

* Written in 1870.

more slowly wrought upon them than they are upon the lower orders of living creatures, or than they were upon the ancestors of nations in the first ages of human existence. All history, even the most an-

All history comparatively modern.

cient, is comparatively modern. Herodotus of Halicarnassus, called "the father of history," wrote 2,000 years after the flood. The oldest stone inscriptions of Egypt and Assyria are *new* when compared with the era of the dispersion of the patriarchs of nations from Babel in Shinar. The description given by Herodotus of the Nubians, and the troops of different nations who formed the army of Xerxes, and the question of the prophet Jeremiah, "Can the Ethiopian change [the color of] his skin?" prove that the colors which characterize the races now, distinguished them 500 years before the Christian era. I think it probable that the widely-scattered families of Adam's descendants received their typical impressions in the early ages of *prehistoric* time, before Herodotus or Moses wrote, when humanity was in its infancy, and all things belonging to the Quaternary period were new, and in a *plastic condition—susceptible and impressible—and*

"Like wax to receive, and like marble to retain."

Two conditions of the atmosphere seem to be necessary to produce blackness of complexion, *great heat and excessive dryness*. In the hot and dry regions of tropical Africa and Asia, *black* is the predominant color of the inhabitants. White is the prevailing

hue of the nations who have dwelt long in cold latitudes. Those who have lived for many ages in hot and damp regions, or in dry and warm climates, and who have not been greatly mixed with other nations from the torrid or frigid zones, are brown or yellow. If dark-colored races are found in northern climates, like the Tartars in Sweden, and the Lapps, Finns, Calmucks, and Esquimaux, in the neighborhood of the Polar Ocean, or the negroes of Canada and New England, or if white people are settled in India, Liberia, Egypt, and Australia, they are exotics recently planted far from the spots where their ancestors were blackened or bleached in by-gone ages.

NOTES ON LECTURE III.

I. Dr. J. L. Cabell, in his work on "The Common Parentage of the Human Races," gives the following very good reason why it is more rational to suppose that the world was peopled by the progeny of a single pair radiating from one spot, than by many miraculous creations of the ancestors of the races placed originally in their present habitats (p. 296): "Inasmuch as it has been shown that man has the power of undergoing acclimation in every habitable quarter of the globe, and had the means of facilitating his migrations from his original birthplace, while, moreover, he is susceptible of undergoing variations in bodily structure, and in intellectual and moral tendencies, which variations, once acquired, are subsequently perpetuated by descent, *it is contrary to the observed ways of Providence to multiply miracles, and especially the highest miracles, in order to achieve a result which was clearly practicable by natural processes.*"

II. One of the most wonderful changes wrought by climatic influence upon any animal is mentioned by Blyth, and quoted by Mivart in his work on "The Genesis of Species,"* as having been effected by that of India upon the turkeys carried to that country from Europe. They are "much degenerated in size, utterly incapable of rising on the wing, of a *black color*, and with long *pendulous appendages over the beak* enormously developed."

* "Genesis of Species," by St. George Mivart, p. 114.

LECTURE IV.

THE GEOGRAPHICAL ARGUMENT.

The Third Objection to the Doctrine of the Bible in regard to the Descent of all Mankind from Adam and Eve stated.—How Grades of Civilization, Languages, Manners, and Customs, are changed by Habitats.—The Cause of the Differences of the Languages of the Choctaws and Chickasaws.—The Doom of the North-American Indians.—How Modern Europeans have “overspread” the Whole Earth.—Ancient Voyages.—Night-sailing, and the Use of the Compass.—Circumnavigation of Africa, in the Reign of Necho II., by the Egyptians.—Ancient Voyages of the Tyrians.—The Atlantis discovered and settled by them.—The Colhuas, or “Bearded White Men,” of Mexico.—The Saturnian Continent of Plutarch, and the Meropia of Theopompus.—The Analogy between the Atlantis of Plato and the Ancient Kingdom of Xibalba, in Central America.—The Word *Atlantic* derived from the Mexican word *Atl-water*.—The Transatlantic Continent of Diodorus Siculus discovered by the Phœnicians.—Early Intercourse between the Basques, Irish, and Ancient Americans.—St. Virgil and the Transatlantic Antipodes in the Eighth Century.—The Tuscarora Indians of North Carolina, and the Mandans of the Upper Missouri, the Descendants of the Welsh Prince Madoc and his Followers.—Ancient Intercourse between Eastern Asia and America.—Chinese and Japanese Descriptions of Fu-sang, or America, in the Fifth Century.—Mongol-Americans.—Malay-Americans.—The Classification of the Races by Blumenbach, Pritchard, and Cuvier.—Evidence that the North-American Indians are of Scythian Descent.—How Hebrew Words became incorporated in their Dialects.—The Afghans.—Bin-i-Israel, or Children of Israel, and the Black and White Jews of India.—Intercourse between the Israelites and Scythians, and of Various Mixed Races, with the Americans in Prehistoric Times.

THE third objection to the biblical theory of the unity of the human race which I will examine is—“the separation of the races from each other for unknown ages by great oceans, and by almost impassable continental barriers, makes it improbable that they descended from one parentage, and migrated from one spot.”

The invalidity of this objection will appear if we

reflect that there are now living, brothers and cousins, in the most widely-separated countries, who were born in England, and who have overcome all the physical obstacles which opposed their migration to the four opposite quarters of the globe where they are now settled. Antipodal to each other, they are rearing their families to be the ancestors of future generations in Australia, Canada, New Zealand, Newfoundland, Malta, British Columbia, the Hebrides and Jamaica; and the parents of these founders of nations are now living in London. But if the bonds of that great empire, "upon which the sun never sets," should be dissolved, and the fragments of it transformed into separate republics, monarchies, or tribal governments, having no commercial or religious intercourse with each other or with the mother-country for many future ages, it may reasonably be supposed that great changes will be wrought, by a variety of agencies upon the bodies and souls of the descendants of these kinsmen, during their long separation from the land of their ancestry, and from one another. Such separations of the offspring of the same parents, continued for thousands of years, enable us to account for many of their differences of form, and physiognomy, of language, religion, manners, and customs. To a native of England, the new circumstances of life in the tropical belts of Asia, Africa, and America, or in the Desert of Sahara, in Iceland, or a coral-reefed island of the Pacific Ocean, would present many new objects,

and suggest many *new ideas*; and these things, *new* to him, would require *new words* to express his thoughts about them, and thus his language would be changed. His children, deprived of books, and cut off from literary and conversational intercourse with the people of the land of their fathers, would, in a few centuries, lose their ideas and language, and acquire a new speech unintelligible to their kindred in another hemisphere. The necessity of work for self-preservation, in a country whose climate and indigenous productions are very different from those of their ancestral abode, would generate new habits, manners, and customs. They would have to exercise their mental and physical faculties in new modes and upon new objects. The habitations, dress, food, and occupations of the descendants of the brothers settled in New Zealand and Guiana would be very different from those of the offspring of the brothers who made their homes in Newfoundland and British Columbia.

To show the effect of the introduction of new things among the same race, and speaking the same language, but separated from one another into different governments, I will mention an interesting fact: In 1838 I was employed as a draughtsman in the United States Land-Office, in Pontotoc, Mississippi, to make a map for the General Land-Office in Washington City, showing the connection of the surveys of the lands purchased by the Government from the

Choctaw and Chickasaw Indians. While I was engaged in this work, I had a vocabulary of their languages, and the aid of their chiefs and interpreters. In order to preserve as much as possible of these aboriginal languages, which may in a few centuries become extinct, I carefully placed upon this map the Indian names, with their translations added, of all the large creeks and rivers of North Mississippi. From their chiefs and principal men I learned all I could of their history and traditions. I ascertained that they were originally one tribe; but, on account of some feud, they separated, about two hundred years before that date, into the two tribes of Choctaws and Chickasaws, each led by a head chief, or king. The two kings were brothers, named *Choctaw* and *Chickasaw*. Before their separation they spoke the same language; and I observed that their names for all the beasts, birds, and trees indigenous to the country, and of things with which they were familiar, were the same in both languages, except such as had been introduced among them by the whites after their separate tribal organizations. Each tribe had given a different name to the new importations of the manufactures and other things brought to their knowledge by white traders and settlers. The nouns designating these things, and adjectives and verbs derived from them, are now so numerous, and their languages have become so different, that individuals of the two tribes find it difficult to understand each other in

The changes of
the languages of
the Chickasaw
and Choctaw
Indians.

conversation. In a brief period I fear that these languages will vanish away with those who speak them. All the North-American Indians seem to be destined to extinction at a day not far distant, or to be mingled with the mixed races of Europe who have deprived them, by conquest or treaty, of nearly all their ancient hunting-grounds. In the year 1800 it was estimated that there were about 14,000,000 of them within the present limits of the United States.* This estimate was probably too large. In 1840 they had been reduced by war, starvation, the small-pox, and other diseases, and by drunkenness, to about 2,500,000. In 1860 they

The extinction
of the Indian
tribes of Amer-
ica.

had diminished in number to less than half a million. In another century this savage but valiant race of hunters and warriors will all be with the builders of the mounds of the Mississippi Valley and the extinct races of the earth who constructed the "middens" of Denmark and the ancient cities of the Swiss lakes, unless Christian civilization, which some of their tribes have embraced, shall arrest their decline.

Within the last three centuries, we know that colonies from Europe have overspread the whole earth, and mingled with the inhabitants who preceded them in their migrations. They have added many millions to the population of North and South America, and have given new elements to the condition of the races

How colonies of
Europeans have
overspread the
earth.

* Catlin's "North-American Indians."

inhabiting all the continents and islands of the globe. We are the descendants of those colonists whose ancestors came from Asia and Africa, and settled Europe. Columbus, and the explorers from Europe who succeeded him, in the sixteenth and seventeenth centuries, discovered that all the continents and islands of the world were occupied by different races of men previous to the year 1492, except the isolated and almost uninhabitable spots already mentioned. Were the races they discovered *indigenous* to them? Are they descended from progenitors placed there originally as Adam and Eve were in Eden? Or did they migrate to them from the Old World? I believe that all these aborigines came from Europe, Asia, and Africa, and that they crossed the oceans, and reached the spots where they were found, in the same way, or by some such means of locomotion, as were used by the European navigators who discovered them. The fact that these discoverers overcame the vast and perilous barriers of ocean, and landed upon these long-hidden shores, renders it probable that the people they found already settled upon them had, in preceding ages, surmounted the same obstacles which afterward separated them from the homes of their ancestors in the Eastern Hemisphere. If it can be proved that *some of them* certainly did so, although only a few such examples, well attested, may be produced, they will be sufficient to establish the probability that there may be many more. If I can present a few facts to show that some of the ancestors

of the present races of aborigines, occupying islands and portions of continents introduced to the knowledge of modern Europeans since the year 1492, came from the "Old World," and settled upon them before that time, and that their descendants are now classed by ethnologists with races or types of mankind different from our own, the inference will be just, that all the rest of these recently-discovered people originated in the same common source of humanity with ourselves.

I will now produce a few such well-authenticated examples. It cannot be doubted that, many ages before the Christian era, mankind made
Ancient voyages. very extensive voyages upon the ocean, and that the inhabitants of very widely-separated countries held commercial intercourse with each other. The art of *night-sailing* * was
Night-sailing. taught in ancient Tyre ; and the Arabians and Chinese certainly used the *mariner's compass* before it was brought from China to Venice by Marco Polo in 1260. After doubling the Cape of Good Hope, and while continuing his voyage to India, Vasco de Gama found the Arabians on the coast of the Indian Ocean using the *mariner's compass*, and vessels equal in quality to his own. The most ancient of these voyages, of which we have any authentic information, is that of the circumnavigation of Africa by an expedition sent out by one of the ancient kings of Egypt, Necho II., mentioned by Herodotus in his

* According to *Strabo*.

history. He relates that the Egyptian voyagers sailed out from the Red Sea, upon the Indian Ocean, and were absent three years; and that they returned to Egypt by the Mediterranean Sea. They passed from the Red Sea into the Indian Ocean, through the Straits of Bab-el-mandeb; coasted the entire continent, and entered the Mediterranean through *the Pillars of Hercules—the mountains Calpe and Abila*—or what is now the Strait of Gibraltar. Herodotus expresses a doubt in regard to the truth of this account, because they reported that, after they had sailed very far to the south, the sun was to the north of them. Herodotus knew nothing about the equator, or the earth's rotundity, and the great prairie regions of Southern Africa were unknown to the Greeks of his day. They supposed that the greatest heat was the farthest south, and that the distant and unexplored region was a fiery realm uninhabitable by men. But the reasons he gives for his doubts about the truth of the narrative of these ancient Egyptian mariners proved that they crossed the equator and doubled the Cape of Good Hope at least two thousand years before it was seen by Vasco de Gama. If the distance they sailed had been extended on a parallel of latitude, it would have reached half around the globe.

The ships of Tyre, in the days of King Hiram, brought Solomon gold, ivory, and peacocks, from Tarsus and Ophir. Tarsus is supposed to have been the ancient Tartessus in Spain.

Circumnavigation of Africa by the Egyptians.

Voyages of the Tyrians.

The site of Ophir is not positively known*; but it was probably on the coast of Oman. The gold and ivory might have been procured from Abyssinia; but the peacock (the *Pavo Indicus*) is an Indian bird. It is yet indigenous in the forests of Eastern Asia; and a distinct variety of it is found on the island of Java.† The Tyrians, the descendants of Ham, through Canaan, settled Carthage in Africa; and the Carthaginians built Carthagera in Spain. They brought tin in their ships from Cornwall in England; and as these ancient mariners and merchants usually planted colonies upon the coasts of the countries with which they traded, as is done by the modern English, Dutch, and other maritime and commercial nations, and as they circumnavigated Africa, as the voyage of Hanno assures us they did, it is probable that they formed settlements on the shores of Brittany, England, Wales, and Ireland. The traditions and mythical history of their ancient inhabitants make the fact almost certain, while the obscure accounts of the Atlantis, given by the poets and historians of

The Atlantis.

Greece and Rome, render credible the possibility that the enterprising and nautical Tyrians, and their colonies, may have had commercial intercourse with the aborigines of Mexico, and that they were the builders of Palenque.‡ The Abbé Brasseur de Bourbourg, Humboldt, and others who have examined the monuments of the ancient

* See Note II.

† See Note IV.

‡ See Note V.

people of America, and made themselves familiar with their inscriptions, picture-writing, and the traditions of their descendants, are unanimous in their opinions that the builders of these edifices came from Western Europe or Eastern Asia; and that their religion and civilization were derived from the same sources to which the ancient Assyrians, Egyptians, and Phœnicians, were indebted for theirs. Baldwin, in his work, "Prehistoric Nations," has given a very lucid summary of the evidence of the connection which once existed between the inhabitants of the two hemispheres in the ages before the discovery of America by Columbus.* The uniform tradition of the most civilized countries discovered in America by the Europeans in the fifteenth century is, that civilization came originally from the East across the ocean. The Abbé Bourbourg, speaking of the earliest civilization of the Mexicans and Central Americans, says, "The native traditions generally attribute it to '*bearded white men*,' who came across the ocean from the East." The same tra- The tradition of "bearded white men." dition was communicated to Cortez by Montezuma. It is probable that the copper-colored and almost beardless natives, among whom they introduced their civilization, came from Eastern Asia, and belonged to the same races with the ancestors of the Mongols, Chinese, Japanese, and Malays, who may all be classed with the *yellow race* of Cuvier. The native histories of the civilized nations of Mexico

* Baldwin's "Prehistoric Nations," p. 392.

and Central America, before the time of Columbus, published by the Abbé Bourbourg, describe "three classes of ancient inhabitants. First, the *Chichimecs*, who seem to have been the uncivilized inhabitants of the country." They were taught the arts

Aborigines of
Mexico and Cen-
tral America.

and usages of civilized life by the *Colhuas*, "the bearded white men" who built Palenque and other cities, whose ruins astonish the antiquarians of our age. These *Colhuas* established the great kingdom of *Xibalba*, celebrated in their histories and traditions; and they are said repeatedly to have come from beyond the sea, and directly from the East. They were overthrown by the *Nahuas*, or *Toltecs*, who came much later, as peaceable immigrants, but after a time united with the uncivilized Chichimecs in a civil war which overturned the dominion of the Colhuas. These "bearded white men" were in all probability ancient Tyrians, associated with those who imparted to the earliest writers of Europe their knowledge of the *Atlantis*.

The bearded
white men were
Tyrians.

The Abbé Clavigero and other historians represent the Toltecs as the most ancient civilized inhabitants of America, and point to *the north* and *north-west* as the direction whence all the different races in Mexico came in their migrations, except these white men, the date of whose settlement among the aborigines is at present unknown.

In the traditions, legends, and mythical geography of the ancients, there is much that has no mean-

ing if it does not preserve vague recollections of a very ancient knowledge of America. Plutarch's mention of a great Saturnian Continent beyond the Cronian Sea, meaning the Atlantic Ocean, the Atlantis of Solon and Plato, and the Merope of Theopompus, all belong to a class of these ancient traditions. Solon brought from Egypt to Athens the story of the Atlantic Island, which was not entirely new in Greece. The invasion of the East, to which it refers, seems to have given rise to the *Panathenæa*, the oldest and most splendid of all the festivals celebrated in Attica in honor of Minerva. In the lesser Panathenæa, a *peplum** of Minerva was carried, one of the *symbolic devices of which showed how the Athenians by her aid had the advantage in the war with the Atlantes*. A scholium, quoted by Boeckh and Humboldt from Procles, an ancient Carthaginian historian, says: "The historians who speak of the islands of the *exterior sea* (the Atlantic Ocean) tell us that in their time there were seven islands consecrated to Proserpine, and three others, of immense extent, of which the first was consecrated to Plato, the second to Ammon, and the third to Neptune. The inhabitants of the latter had preserved a recollection (transmitted to them by their ancestors) of the island Atlantis, which was extremely large, and for a long time held sway over all the

* The *peplum*, an outer garment worn by females, and borne in procession in the Panathanæa, and presented to Minerva.

islands of the Atlantic Ocean."* The Abbé Bourbourg, in his learned and interesting work, "The History of the Civilized Nations of Mexico and Central America," before the discovery of Columbus,† presents a remarkable analogy between the king-

Analogy between the Atlantis and the kingdom of Xibalba.

dom of Xibalba and the Atlantis, as described in Plato's "Critias:" "Both countries are magnificent, exceedingly fertile, and abound in the precious metals. The empire of Atlantis was divided into ten kingdoms, governed by *five couples of twin-sons* of Poseidon, the eldest being supreme over the others, and the ten constituted a tribunal that managed the affairs of the empire. Their descendants governed after them. *The ancient kings of Xibalba, who also reigned in couples*, certainly furnish a curious point of comparison. They, together, likewise constituted a grand council of the kingdom. Xibalba also had a terrific inunda-

Atlan in Central America.

tion, and the name of *Atlas*, of which the etymology is found only in the *Nahuatl* tongue. It comes from *atl*, *water*, and we know that the city of *Atlan*, *near the water*, still existed on the Atlantic side of the Isthmus of Panama at the time of the conquest." This remarkable resemblance between the two countries affords evidence, almost conclusive, that Plato must have had a correct knowledge of the veritable or fabulous history of this

* Humboldt's "Histoire de la Géographie du Nouveau Continent," tome i.

† Baldwin's "Prehistoric Nations," p. 397.

American kingdom when he wrote his description of the Atlantis; and, whether the account of it is true or false, the proof is very convincing that a connection existed in prehistoric times between the Phœnicians and Central Americans. Diodorus Siculus, who wrote a history of Egypt, Persia, Syria, Media, Greece, Rome, and Carthage, in the time of Julius Cæsar, about forty-four years before the Christian era, gives this account of a country which was evidently Mexico or Central America:

“Over against Africa lies a great island in the vast ocean, *many days’ sail from* The western country of Diodorus Siculus.

Libya westward. The soil is very fruitful. It is diversified with mountains and pleasant vales, and the towns are adorned with stately buildings.” After describing the gardens, orchards, and fountains, he tells how this pleasant country was discovered. He says, the Phœnicians, having built Gades* in Spain, sailed along the western coast of Africa. A Phœnician ship, voyaging down south, was “on a sudden driven by a furious storm far Its discovery by the Phœnicians. into the main ocean, and, *after they had lain under this tempest many days,* they at last arrived at this island.” There is a similar statement in a work attributed to Aristotle, in which the discovery is ascribed to the Carthaginians, who were Phœnicians. The Baron Humboldt quotes a passage from Plutarch which he thinks describes the Antilles and the

* Gades, now Cadiz.

American Continent.* *A great continent* is mentioned *beyond the ocean*, and, in the dialogue quoted, an account is given of this *Saturnian Continent*, which was related by a stranger who came from it to Carthage.

Claudius Ælianus,† who wrote his work, *Varia Historia*, about 170 years after the Christian era, mentions that Theopompus, of Chios, who flourished B. C. 354, related the particulars of an interview between Midas, King of Phrygia, and Silenus, in which the latter reported the existence of a *great continent, beyond the Atlantic, larger than Asia, Europe, and Libya, together*. He stated that “a race of men, called *Meropes*,

The account of America given to Midas by Silenus. The Continent of the Meropes.

dwelt there, and had extensive cities. These Meropes believed that their country alone was *a continent*, and some of them, prompted by curiosity, *crossed the ocean, and visited the Hyperboreans*.” These were the ancient inhabitants of what is now Denmark, Norway, and Sweden; and, taking into consideration the connection of this account of the intercourse between the Meropes and the primitive Scandinavians, with the subsequent sailing of the Northmen to New England in the tenth century, and their settlement of colonies on the coasts of this continent, we are able to account for much that is obscure in history. The Abbé de Bourbourg is of the opinion that these Northmen were preceded in their voyages

* “La Géographie du Nouveau Continent,” p. 191.

† Ælian, *Varia Historia*, book iii., chap. xviii.

to Iceland and America by the Irish and the Basques of Spain. These ancient people of Biscay,* "being adventurous fishermen, and extensively engaged in the whale-fishery," it is said, "were accustomed to visit the northeast coast of America long before the time of Colum-

Intercourse of
the Basques
and Irish with
America.

bus." "There is an abundance of legends and traditions concerning the passage of the Irish into America, and their habitual communication with that continent, many centuries before the time of Columbus." We should bear in mind that Ireland was colonized by the Phœnicians. An Irish saint, named Virgil, who lived in the eighth century, was accused to Pope Zachary of having taught heresies on the subject of the *antipodes*.† At first he wrote to the pope in reply to the charge, but afterward he went to Rome in person to justify himself, and there proved to the pope, that the Irish had been accustomed to communicate with a transatlantic world.‡

Saint Virgil's
heresy about
the antipodes
in the eighth
century.

I will add to the above evidence of a very early intercourse between the inhabitants of Western Europe and the aboriginal or ancient people of the eastern parts of the American Continent only one more proof, and will then show the probability that such intercommunication as they held with each other, by voyages across the Atlantic Ocean, was also

* Mechel's "Les Pays Basques."

† Introductory note to "Popo-wuh," by De Bourbourg.

‡ See Note VI.

maintained between the nations of Eastern Asia and those of the western shores of our hemisphere over the Pacific, in ages long anterior to its discovery by Columbus. This proof is afforded us by the singular history of the Mandan Indians. The painter

The Mandans, or
Welsh Indians.

Catlin has proved clearly that they are the descendants of the Welsh who left their native land some time previous to its subjugation by Edward I. of England, in 1282 or 1283. The author of "The Prehistoric Nations" * seems not to have read Catlin's work, "The North American Indians," or he could have added his account of the Mandans to the following interesting facts which he has preserved. He says: "The Welsh Prince Madog (or Madoc) about the year 1170 was just as certain of the existence of America, as the Chinese and Japanese were," and he might have added, as were the Irish and Northmen, when "he sailed away westward, going south of Ireland," to find a land of refuge from the civil war among his countrymen. The Welsh an-

Madoc and his
followers.

nals tell us he found the land he sought.† Having made preparations for a settlement, he came back to Wales, secured a large company that "filled ten ships," and then sailed away again, and "never returned." In A. D. 1660, the Rev. Morgan Jones, a Welsh clergyman, seeking to go by land from South Carolina to Roanoke, was captured by the Tuscarora

* "Prehistoric Nations," by Baldwin, p. 402.

† See Note VII.

Indians. He declared that "his life was spared because he spoke Welsh, which some of the Indians understood ; that he was able to converse with them in Welsh, though with some difficulty ; and that he remained with them four months, sometimes preaching to them in Welsh." John Williams, LL. D., who reproduced the statement of Mr. Jones in his work on the "Story of Prince Madog's Emigration," published in 1791, explained it by assuming that Prince Madog settled in North Carolina ; and that the Welsh colony, after being weakened, was incorporated with these Indians. If we may believe the story of Mr. Jones (and I cannot find that his veracity has been questioned), it will seem necessary to accept this explanation. It will be recollected that, in the early colonial times, the Tuscaroras were sometimes called "White Indians." The Northmen had settlements in New England long before Prince Madog's colony went to America ; and it is not improbable that he may have been acquainted with some of them, and was induced through his information about them to follow their example in seeking a home in the New World. I will add the following facts, which may be regarded as an imperfect continuation of the history of these Welshmen, whose lost annals can never be completely restored. Yet these facts will be interesting in showing "how the world was peopled," and what wonderful transformations take place among the families of men as

The Tascaroras,
or white Indians
of North Carolina.

they find their way through the lapse of ages to their various homes.

The tribe of Mandan Indians was discovered by

The connection
between the Tus-
caroras and Man-
dans.

Lewis and Clarke,* on the Upper Mis-
souri, during their expedition to dis-
cover the sources of the Missouri and

Columbia rivers, sent to perform that perilous duty
under the presidency of Mr. Jefferson, and which
embraced the years 1805-1807. They spent the

The discovery of
the Mandans and
their subsequent
history.

winter of 1805-'6 among these Indians,
but did not learn their traditions. To
the astonishment of Lewis and Clarke,

many of these savages had blue eyes, and their hair
was generally silky and very abundant, and, except
red and auburn, of all the colors which distinguish
the tresses of the various inhabitants of England and
Wales. The ethnological problem presented by their
peculiarities was, I think, solved satisfactorily by
Catlin,† who visited them and spent some months
with them in 1832. He found in their language *fifty
pure Welsh words*, one hundred and thirty nearly
so, and many others of Welsh derivation. They used
a circle of stones in the construction of the hearths
of their huts; they had preserved the art of making
the Welsh blue beads; and they navigated the Missou-
ri River in a canoe, like the Welsh *coracle*, made of
willow-limbs and raw-hide, of a peculiar construction,
and used nowhere in the world except in Wales. It

* Lewis and Clarke's Expedition, 1805-'7.

† Catlin's "North-American Indians" (*Mandans*.)

was a *tub pulled*, instead of being *propelled*, by a paddle. Their tradition was, that their ancestors came across the "great water" from the *East*; while the Mexicans and some Indian tribes of the United States point to the Northwest as the direction from which they migrated. Catlin verified the correctness of their tradition as having come from the East, down the Ohio, and up the Missouri, by tracing the ruins of their huts, easily recognized by the Welsh hearth-stones, up the Ohio River, as far as he examined it. This interesting tribe, he tells us, was nearly exterminated by the small-pox in 1837; and their destruction, as a separate clan, was completed soon afterward, when they were vanquished by their inveterate enemies the Rickarees, and their remnant became incorporated with that tribe. The Tuscaroras inhabited the banks of the Yadkin, and other rivers of the northwestern parts of North Carolina, whose waters interlock with those of Green River, and the other tributaries of New River, the principal branch of the Great Kanawha, which empties into the Ohio. The great forests of these regions abounded in game; and many of their valleys, and the mountain-plateaus separating them, still afford excellent hunting-grounds. The migration of these Welsh Indians up the Yadkin, and down the Ohio, by the valleys of the Ararat, Green, New, and Kanawha Rivers, was easily accomplished; and this, I think, was their route to the Missouri. Connecting these facts, and examining them

How the Tuscaroras migrated to the Missouri.

properly, lead to the conclusion of Catlin, that *the Mandans are the descendants of Madoc and his followers*, mixed with various Indian tribes.

The evidence that the ancient inhabitants of Eastern Asia were acquainted with the Continent of America is as conclusive as that which we have presented to prove that those of Western Europe were once familiar with it.

The ancient intercourse between Asia and America.

The Abbé de Bourbourg, in his introduction to the Popo-wuh, says: "It has been known to scholars nearly a century, that the Chinese were acquainted with the American Continent in the fifth century of

Chinese and Japanese accounts of it.

our era. Their ships visited it. They called it *Fu-Sang*, and said it was situated at the distance of 20,000 *li* from Ta-Han. M. Leon de Rosny has ascertained that *Fu-Sang* is the topic of a curious notice in the 'Wa-kan-san-tai-dzon-yé,' which is the name of the great Japanese Encyclo-

Fu-Sang, east of Japan.

pædia. In that work, *Fu-Sang* is said to be situated east of Japan, beyond the ocean, at the distance of about 20,000 *li* (more than 7,000 miles) from *Ta-nan-kouëk*. Readers who may desire to make comparisons between the Japanese descriptions of *Fu-Sang* and some country in America, will find astonishing analogies in the countries described by Castañeda, and Fra-Marcos de Niza, in the province of Cibola." In Peru, in the time of Pizarro, the oldest and most enduring stone structures were said to have been built by "bearded white men," who were also called "sons of the sea." They may

have been Arabians, or some other civilized sun-worshippers, from Southern Asia. Many of the North-American Indians point to the Northwest as the quarter whence their ancestors migrated. The Toltecs, Aztecs, and their successors the Shoshones, Dakotahs, Algonquins, and others, are evidently of the same descent with the Mongolians. There are other tribes on the Pacific coast, like those about Nootka Sound, who bear a closer resemblance to the Malays. Prichard divides mankind into seven races—the Iranian, Tauranian, American, Hottentots, including Bushmen, Negroes, Papuans, and Alfoursous. Blumenbach classes them into five—the Caucasian, or white; the African, or black; the American, Mongolian, and Malayan. Cuvier's classification of the whole into only three varieties, the white, black, and yellow, is much the most simple and correct. He includes the whole of the aboriginal races of the American Continent in the same class to which he assigns the Chinese, Japanese, Mongols, and Malays. This great naturalist, and the greatest of all the comparative anatomists, could find nothing to distinguish our American aborigines from these Asiatics, except a greater average projection of the nose, and somewhat larger eyes. He is evidently correct in placing them all in one class, *the yellow race*. If a congregation of twelve representatives from Malacca, China, Japan, Mongolia, and the unmixed natives of the Sandwich Islands, the pure-

Mongol-Americans.

Malay-Americans.

The classification of the races.

blooded Chilian, Peruvian, and Brazilian Indians, and others selected from the unmixed Chickasaws, Comanches, or any other North-American tribes, were all assembled, and dressed in the same costume, or exhibited undressed and unshaven, I doubt whether the most skilful painter or the most practised anatomist, judging from *their appearance* only, could separate them into their different nationalities. He would decide that they were all *the same people*, and men of one type. I think it probable that the ancestors of the most of these aborigines of North Amer-

The ancestors of the North American Indians Asiatic nomads.

ica were Asiatic nomads who came into this continent, in successive swarms, in different periods, from Northeastern Asia. Many of them were probably driven from their pastures and hunting-grounds by such terrible conquerors as Genghis Khan, who generally exterminated all the clans who resisted their power. I infer this from the imperfect historical accounts of the Huns and other Tartars; and the facts accessible to us in relation to their manners, customs, and degrees of civilization, at different periods in past ages. Gibbon, in his splendid history of "The Decline and Fall of the Roman Empire," informs us that the hosts of warlike nomads from Western Asia who overran the Roman Empire were generally tribes of Tartars flying from the invasions of conquerors who were devastating the central regions of that vast continent. At one time the army of Genghis Khan numbered 1,400,000 horsemen; and it was the boast of these

scourges of God that they so utterly desolated the face of the earth that the grass would never grow again in the track made by the withering march of their armies. Their weaker enemies had to save themselves by a prompt and abject submission, or by a precipitate flight to regions beyond their reach. Some of them doubtless at different times crossed the Aleutian Archipelago and Behring's Straits to North America. These immigrations from Asia to our shores consisted probably of tribes differing in mental culture and artistic skill. The earliest Asiatic immigrants the most civilized. They seem to have followed one another in different centuries, and the earlier immigrants were probably the most civilized. They were settled in cities, built large and permanent edifices, and cultivated the earth. The succeeding immigrants, by whom the more civilized appear to have been exterminated, seem not to have advanced beyond the condition of rude hunters and savage warriors, like the modern Shawnees and Seminoles. That they came from Asia, and were of Mongolian or Scythian descent, is very clear to my mind, from the following considerations :

Their traditions point to the Northwest as the quarter whence their ancestors migrated south and east. The peculiar sound of the *tl*, as Evidence of their Scythian origin. in the Toltec *atl*-water, Popocatepetl and Mazatlan, can be traced in the names of places left in the track of their migrations, as was observed by Fremont, from the valley of Mexico, through all

the region intersected by the Sierra Nevada and Rocky Mountains into British America.

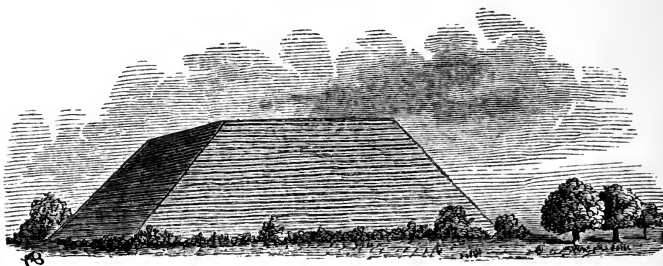
The *tl* in the names of places.

Tlamath Lake is a word of this kind.

The truncated, pyramidal form of their temples, like that of Cholula, and the great temple of Mexico, an engraving of which is preserved in the old editions of the history of Mexico

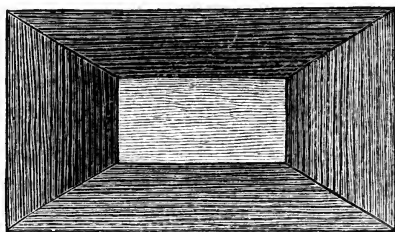
The tumuli of the West.

PLATE IV.



Side View of a Large Aboriginal Pyramid in the Valley of the Tennessee River, near Florence, Alabama, as it appeared in A. D. 1847.

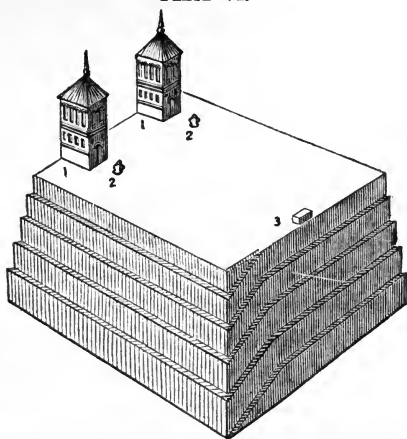
PLATE V.



Vertical View of the Same.

by the Abbé Clavigero, can be seen in the numerous ruins of their cities throughout the valley of the Mississippi. A fine specimen of a temple of this kind

PLATE VI.



The Great Temple in the City of Mexico, A. D. 1520.—1. Priests' Lodges; 2. Perpetual Fires; 3. Sacrificial Stone.

may yet be seen in the large mound in the Tennessee Valley at Florence. Its four sides, formed with geometrical precision, faced the cardinal points, showing its relation to the *sun-worship* of its builders. When I saw it, many years ago, it was about seventy feet high, and covered nearly an acre of land; but it was cultivated in corn, and defaced and disintegrated continually. These mounds are so abundant in the valley of the Yazoo River that they give it the name it bears in the languages of the Choctaw and Chickasaw Indians. *Yazoo* means *old ruins* in their tongues; and not *the river of death*, as it is sometimes translated. There is scarcely a township of fertile land in the whole territory formerly occupied by these tribes

Mound at Florence, Alabama.

Yazoo, "the river of ruins."

which does not embrace one or more of the remains of the various architectural structures of these aborigines. They seem to have been excellent judges of land, and to have selected the best for agriculture; and, where the soil was the most fertile and the best watered, the ruins of their edifices are the most numerous. The concatenation of rivers and bayous, connecting the waters of the Mississippi and Yazoo between Memphis and Vicksburg, seems to have been constructed by them, or to have been improved and utilized for purposes of agriculture and navigation. Some of these bayous, between

Ancient canals.

the towns of Hernando and Commerce, which I examined in 1838, were evidently made or improved by a numerous and enlightened race, who lived upon them and cultivated the land they intersected. It was then an uninhabited wilderness, and the annual floods of the great river inundated all that part of its bottom, except the ancient levees, and the tumuli of these extinct people. Trees, undistinguished in age or size from those of the primeval forest, covered these structures. But they were easily traced, and their various forms were readily observed; and any antiquarian can distinguish and classify them, and ascertain the objects of their construction. They present a vast and interesting field for archæological research.

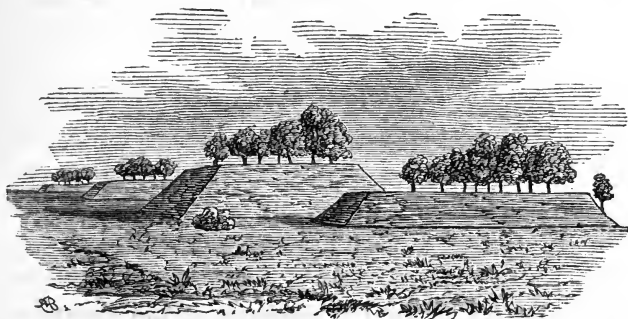
Different kinds of tumuli.

One of these tumuli was a very large *octagonal pyramid*, the only one of the kind which I have seen; and I had no means of ascertaining

whether it was the foundation of a palace or a pantheon. The wooden structures, erected upon these great earthworks, have long since perished. There is no building-stone in the region where they are found. The temples, four of which I saw enclosed within an irregular earth wall and ditch, embracing six acres of ground, in the county of Chickasaw, are built with the sides facing north, south, east, and west, and are so situated that large multitudes could witness the religious ceremonies which might have been performed upon their

Temples facing
the cardinal
points.

PLATE VII.



A Group of Large Aboriginal Pyramids in Chickasaw Co., Mississippi, in A. D. 1838.

summits. The larger hemispherical or semi-ellipsoidal mounds are usually burial-places of the dead slain in battle, such as the ancient Greeks reared above the remains of their heroes. The smaller round ones were evidently their residences, built in a circular form, like the huts of the negroes of Central Africa, sup-

Monuments of
heroes.

Residences.

ported by wooden props, and heavily covered with earth. Their wooden supports have long since decayed, and the earth with which they were covered remains in the form of a circular mound, elevated slightly above the surrounding soil. A section cut across one of them usually reveals these facts: They built their fires in the centre of their cabins. Their charred remains are found there. They buried their dead in *a sitting posture*, beneath the floors, and in a circle around the inner walls of their dwellings. The Chickasaws, who occupied the country and cultivated the fields of this extinct people, but who lived in the usual frontier quadrangular log cabins, buried their dead inside of them as late as 1836.

The ancient fortifications, and other structures of these predecessors of the modern Indians, have been thoroughly explored and represented by Schoolcraft, Squiers, and others, and correct descriptions of them have been published by the Smithsonian Institution and by the Government of the United States, under the direction of the Commissioner of Indian Affairs. They are works of defence, well adapted to the warfare of savages using bows, arrows, and the manual weapons of rude warriors, ignorant of gunpowder or the catapult, battering-ram, and other engines of war used by the civilized nations before the invention of fire-arms. The Pimos of the Gila, and the other Puebla Indians of New Mexico and Arizona, are

Mode of bury-
ing their dead.

Fortifications.

The Pimos their
descendants.

living descendants of the builders of some of these *casas grandes* (*great edifices*), none of whose progeny are now found farther east, and north of the Rio Grande. But the general character of all these ancient ruins resembles those which are scattered over Mongolia and other parts of Central Asia, and their outlines identify them as the work of the same race.

Another evidence of their Tartar origin is the universal practice of *scalping* their enemies, which bloody custom was observed by their ancestors the Scythians, whose ancient dominion embraced all Russia in Europe and Asia. Their complexion, straight black hair, scant beards, black eyes, and general appearance, identify them with the Asiatic *yellow race* of Cuvier.

The scalping of
enemies by the
Scythians.

The Esquimaux, whose snow-huts border all the shores of the Arctic Ocean from Davis's to Behring's Straits, in physiognomy, manners, and customs, show their blood-relationship to all the dwarfish and fur-clad hyperboreans of the Eastern Hemisphere, whose home, for many dismal centuries, has been in "the thrilling regions of thick-ribbed ice" which encircle the north-pole. They are also degenerate descendants of the ancient Scythians who occupied the homes of the Celts, their predecessors. These Celts were, probably, gradually driven by them into Scandinavia. The color of these modern hyperboreans proves that they have not long occupied their present habitats.

The Esquimaux.

Similarity of language or even identity of speech

does not prove that different nations, separated, or individuals living in the same country, are of the same race. The negroes of the United States and Jamaica speak English, but they are not Caucasians. Yet

Identity of language proves intercourse between different races, but not identity of race.

when nations or clans who have been severed for ages, speak dialects of the language of some other race, it is a positive proof that they have once occupied the same locality, or have had some commercial or other intercourse with each other. If their languages are similar, and their physiognomies, complexions, and anatomical traits, are also alike, the evidence is stronger that they belong to the same original type. So many Hebrew words are found in the languages of the North-American Indians that it was formerly supposed by many that they are of Israelitish descent. Some of that miraculously-dis-

Hebrew words among the dialects of the North-American Indians.

persed and divinely marked and protected race may have been mingled with their ancestors in Asia and brought with them to America. But the existence of these words in their aboriginal dialects may be accounted for by the supposition that the Asiatics who emigrated to this continent derived them from commercial intercourse with the descendants of Jacob, who have been, for more than two thousand years, the most migratory and widely-scattered of all the families of the human race. The learned Christian Jew, the Rev. Joseph Wolff,* who has travelled over more of the earth's surface

* Rev. J. Wolff's "Researches."

than any man living, or perhaps more than any man who ever lived, visited all the most powerful Indian tribes of this continent, to ascertain whether they are the descendants of Judah, or of the ten tribes of Israel carried into captivity by Shalmaneser, King of Assyria, about the year B. C. 720. He concluded that they were not; but, in continuing his search for them among the various races of the interior of Asia, he found many traces of them among the inhabitants of Afghanistan. They were settled in the northern part of Media, about the base of the *Hindoo-Koosh* Mountains.* Their descendants still occupy the valleys of this great chain, and are found less mixed than elsewhere about the heads of the Indus, Amoo, and Cashgar Rivers, where the northeast corner of Afghanistan borders upon Bokhara in Tartary, and the Punjab in Hindostan. Sir Alexander Burnes,† who travelled through that region from Cashmere to Balkh, before the Afghan War, and published an interesting account of it, found the Afghans, or *Ben-i-Israel*, inhabiting it still retaining many of the traditions and customs of the ancient Israelites, from whom, they told him and Wolff, they were descended.‡ It must be borne in mind that the land of these people borders upon Mongolia; and, from the time when it formed the northeastern part of the Assyrian

The Afghans the descendants of Israel.

The Afghans call themselves *Ben-i-Israel*, or Children of Israel.

* The ancient *Imaus*.

† "Travels into Bokhara," by Lieutenant Alexander Burnes, F. R. S., 1831-'33, vol. ii., p. 31.

‡ See Note III.

Empire, the Israelites and their descendants have had continual intercourse with the ancient and modern

Mongols. In the neighboring province of Hindostan two colonies of Jews were settled in ancient times, and have re-

Black and white
Jews of Malabar.
Buchanan's "Re-
searches in Asia."

mained there to the present day. Those in the neighborhood of Cochin, called "the black Jews," say that they settled there during the reign of Nebuchadnezzar, soon after he carried into captivity the tribes of Judah and Benjamin, about the year B. C. 588. They show all the peculiarities of "the chosen people." They have their copies of the law, and know their history. They have been a separate people from the Hindoos, yet the climate of India has tanned their skins black as the darkest of the na-

The white Jews
of India.

tives. "The white Jews" settled near them after the final dispersion of the race from Palestine by the Emperor Adrian I., who died about A. D. 136. He defeated and destroyed 500,000 of them, banished the rest from Jerusalem, and built a city upon its ruins with a new name—*Ælia Capitolina*. They came to India about seven hundred years after "the black Jews," and are several shades lighter in complexion than their kindred who have been exposed seven centuries longer to the burning sun of the torrid zone. As the Aztecs do not claim a more ancient date than the eighth century for their settlement in Mexico, and as the more savage tribes found in America by the European colonists succeeded them in their migrations, if they

came from Asia after the Christian era, or even after the successive captivities and settlement of the Israelites and Jews by the Assyrians and Babylonians, their ances-

How the Hebrew words got into the aboriginal tongues of the New World.

tors may have had a sufficient intercourse with them in their Asiatic abodes to have received into their languages the Hebrew words which have puzzled ethnologists. It must be remembered that we have shown

the probability that the ancient Phœnicians, the descendants of Ham, reached America from the East, and they must have imparted much of their language to the ancient inhabitants of it. At the same time when the Phœni-

Hamites came to America from Europe and Asia, over both oceans.

cians traded with the inhabitants of both shores of the Atlantic, and planted their colonies on the coasts of Spain, France, England, and Ireland, and probably the shores of America, another superior race of merchants, navigators, and architects, the descendants of Cush, another son of Ham, the ancient Arabians, were extending their commerce, planting their colonies, and building their Cyclopean edifices on all the coasts, and far into the interior of all the lands of the ancient Orient washed by the waters of the Indian and Pacific Oceans. In the country watered by the Euphrates and Tigris, and in Canaan, and afterward in Arabia, the descendants of Ham and Shem were mingled, and great nations originated from the admixture of the progeny of these sons of Noah. Abraham, a descendant of Shem, came from *Ur*, a city of the Chaldees, 150

The admixture of the descendants of Shem and Ham.

miles from the mouth of the Euphrates. His descendant, Esau, married a daughter of Heth, the grandson of Ham, from which marriage issued the ancient Idumeans, the builders of the city of Edom, and many of the tribes of Arabia Petræa. Another son of Abraham, Ishmael, is the ancestor of other tribes of nomadic Arabs, from one of which Mohammed, of the tribe of Koreish, was produced; and these and other Shemitic Arabs, the descendants of Abraham and Keturah, and of the daughters of Lot, became mingled with the descendants of the ancient Hamitic Arabs, *the Cushites*, the builders of Nineveh, Babel, and Calah. All the languages of these descendants of Shem and Ham resembled each other, as is proved by what we know of the ancient Hebrew, Arabic, and Phœnician tongues,* and, while the stream of commerce and colonization was poured into America by these Hamites, with their languages, across the Atlantic, people of the same descent, from ancient Assyria, Arabia, India, and Malacca, were doing the same work for the Western Hemisphere across the Pacific; and, when we examine the whole subject by all the light imparted by archæology and modern history, we must conclude that the aboriginal Americans are the descendants of the sons of Noah, who came to this continent from Europe and Asia, and that ancient tides of commerce and emigration flowed into it over both oceans, and

Esau the Shemite married a Hittite, a descendant of Ham.

The Arabians are mixed Hamites and Shemites.

* Notes I., II., III.

met and mingled here in prehistoric ages, as they are doing now in our own day. Both hemispheres have had their bright and dark eras. Empires of these men, like those of Nimrod and the Incas, the Cushites and the Colhuas, have risen and fallen in both. In either the Old or New World it is impossible to trace clearly the connection between wandering savages and their remote ancestry, where they have no written, pictured, or sculptured history. Under such circumstances they soon lose a knowledge of their origin and past events, except what is preserved in oral traditions, which the flight of a few centuries darkens into unreliable myths. There is much work to be done by antiquarians in all the four quarters of the world. Many dark places are found in each. A cloud of obscurity hovers over the ruins of past generations, wherever the earth has been inhabited by men, thick as that which covers Edom or Palenque; and the stream of vital blood which animates each human heart emerges from the past out of the depths of a gloom so profound that no living man can trace it to its source, and show clearly the hereditary connection of his existence with that of the first parents of the human race.

NOTES ON LECTURE IV.

I. The languages of the ancient inhabitants of Syria, and especially those which had continual commercial intercourse with each other, like the Tyrians, Carthaginians, and their colonies,

and also the Israelites, were very similar. The Chaldaic, Persian, Arabic, and Hebrew languages, prove the admixture of the descendants of Ham and Shem. The frequent occurrence of the word BAR, *son of*, in the names of the inhabitants of the shores of the Levant, as *Simon Bar-Jonah* among the Jews, and *Hannibal Bar-Milcah* among the Carthaginians, caused the Greeks and Romans to term the whole of them *Barbarians*. The word *barbarian*, and the name of the *Berbers*, or *Bar-bars*, the descendants of the mixed races who inhabited the dominions of the ancient Carthaginians in Northern Africa, on the Mediterranean coast, are derived from this prefix to Phœnician proper names. Fezzan, Tripoli, Tunis, Algiers, and Morocco, were called, until very recently, the *Barbary States*, by modern geographers.

II. *Ophir*, or *Afr*, means *West*. *Africa* signifies the *Western country*. The meaning of the word *Ophir* makes it doubtful whether it was a city or country of Asia. It is more probable that it was situated on the Gold Coast of Africa, with which the Tyrians, and afterward the Carthaginians, traded. It is even possible that it may have been in Central America. The best authorities, however, Volney, Bochart, Michaelis, and Forster, suppose it occupied the site of *Ofor*, or *Ophor*, on the Persian Gulf.

III. Sir Alexander Burnes, in his published "Journey to Cabool," 1836, chap. vii., relates a conversation he had with the celebrated Afghan chief, *Dost Mahomed Khan*, about the origin of the Afghans; and he says: "In reply to my inquiries regarding the descent of the Afghans from the Jews, he said, 'We marry a brother's wife, and give a daughter no inheritance; are we not, therefore, of the children of Israel?'" He adds the following note: "I since find that the book from which the Jewish lineage of the Afghans is derived, is the *Mujmoo i ansab*; and it is said that the *Urz Bege* of Hajeer Feroz, at Herat, possesses elaborate genealogical trees on the same subject." He says that the Afghans call themselves "*Bin-i-Israel*," *Children of Israel*.

IV. In addition to the common variety of the peacock, and the white or sacred kind, a third variety has been produced

by domestication in England. "Mr. Darwin tells us that there has been an occasional development (in five distinct cases) in England of the 'Japanned,' or 'black-shouldered peacock' (*Pavo nigripennis*), a distinct species, according to Dr. Selater, yet arising in Sir J. Trevelyan's flock, composed entirely of the common kind, and increasing 'to the extermination of the previously existing breed.'"—(MIVART'S *Genesis of Species*, p. 414)

V. The accidental discovery and settlement of South and Central America by any ancient maritime and commercial nations, like the Phœnicians and Arabians, navigating the western coast of Africa in past ages, will appear very probable if we will consider the historical fact of the modern discovery of Brazil by the Portuguese. After the return of Vasco de Gama from his voyage to India by the way of the Cape of Good Hope, which he doubled in 1498, the King of Portugal sent out a squadron under the command of Cabral, in A. D. 1500, to take possession of a part of Hindostan, and to settle a colony upon it. Ignorant of the course of the strong monsoon which blows along the torrid zone from Africa to South America, and of the great ocean-current which flows with it, and strikes the shores of Brazil, Cabral stood out to sea, to avoid the stormy weather of the Cape, and the typhoons which prevail in the Indian Ocean near the southeast coast of Africa. But, in endeavoring to escape this danger, he was involved in the forces of the tropical wind and ocean-current, which bore him westwardly to the shores of Brazil, upon which he landed, and claimed it by right of discovery for the crown of Portugal. Soon afterward another adventurous navigator, *Nunez*, in coursing along the shores of the Gulf A. D. 1503. of Darien, discovered a colony of *woolly-headed black people*, who had settled among the copper-colored occupants of the main-land. The above facts are quoted in an excellent history of the West Indies, published by Bryant Edwards in A. D. 1805. In any period of time, navigators on the coast of Western Africa have been liable to fall into the same oceanic current, and to be driven by the same gale, to the shores of South or Central America, which have doubtless received some of their ancient inhabitants by such means.

VI. Virgilius, an Irishman, was appointed Bishop of Saltzburg by Pepin the King of France. Boniface, the Archbishop of Metz, thought that his ideas in regard to the earth's rotundity and its antipodes conflicted in some way with the Mosaic account of its creation, and the origin of mankind, and accused him to the pope. But it seems that both Zachary and Boniface were satisfied with the soundness of his faith, as the charges against him were dismissed, and he was afterward made Bishop of Saltzburg. He died in A. D. 780.—(MILNER'S *History of the Church*, vol. i., p. 564, American edition, 1835.)

VII. There were two Madogs who have figured in Welsh history. One of them was executed for treason in the reign of Edward I., about A. D. 1287. The other, the emigrant to America in A. D. 1170, was Madog the son of Owen Groynwedh, from whom the *Doegs*, or Madogwy Indians, received their name. "The Turkish Spy," a work written during the reign of Charles II., by an Italian, John Paul Marana, in the service of the Sultan of Turkey, and who lived in Paris many years, while he corresponded with the Divan in Constantinople, was published in London in 1734. The author, who was a *Turkish spy*, in this work gives an interesting account of the condition and affairs of the kingdoms of Western Europe. Speaking of the British possessions in North America, he says: "There is a region of that continent inhabited by a people whom they call Tuscoards and Doegs. Their language is the same spoken by the British or Welsh; and these Tuscoards and Doegs are thought to be descended from them." According to Rafinesque, the Tuscoards, or Tuscaroras, were one of the Iroquois tribes, or Six Nations, who went to North Carolina and settled on the Neuse River. There they probably became united with the Doegs, or followers of Madog. *Mandon* is the name of the *woodroof*, or Welsh madder, used for dying red. Catlin thinks the Welsh gave the name *Mandon* to these Indians on account of the beautiful red they used in dying their porcupine-quills.

LECTURE V.

THE GEOGRAPHICAL ARGUMENT CONTINUED.

Continuation of the Answer to the Third or the Geographical Argument against the Unity of the Human Race.—America was originally peopled from Western Europe and Eastern Asia.—Possible Intercourse between America and Ancient Arabia.—The Arabians used the Compass.—The Cape of Good Hope represented on Ancient Arabian Maps as Cape *Dsiab*.—Covilhan's Letter to the King of Portugal, informing him that Africa could be circumnavigated.—Early American Immigration from Malacca.—Cuvier's Remarks about the North-American Indians.—The Arabian Geographer El Masudi's Account of the Malayan Empire in the Tenth Century.—The Nootka Indians, the Quichuas of Peru, and the Yellow Races of the Pacific, are Malays.—The Original Inhabitants of the Islands now occupied by the Yellow Race were Negroes.—They have been destroyed in the most of them.—America was reached by the Negroes in Ancient Times.—The Evidences of the Continual Diminution of the Negroes in Africa and elsewhere, and the Danger of their Extinction.—Facilities for navigating the Pacific Ocean.—How the Yellow Race sometimes people its Islands by Unavoidable Accidents.—The Lost Sillibaboos.—The Admixture of Noah's Descendants in America.—The Change of Habits, and the Wanderings of the North-American Indians.—How the Yellow Race destroys the Black by Admixture.—The Blending of Noah's Posterity in the Old World.—Black Men in the Frigid Zones, and White in the Torrid, are *Exotics* recently introduced.—The Celts, or Kelts, described.—The *Officina Gentium*.—Galatia conquered and settled by the Gauls.—The *Caucasian Race* a Compound of the White and Yellow Races, and is always predominant where all the Descendants of Noah have been most thoroughly mingled.

IN continuation of an answer to the important question, "How the world was peopled?" and a reply to the third objection to the Bible doctrine, that it was peopled by the descendants of only one original pair, I will add a few facts to those already adduced, to show that the aborigines of North and South America are the progeny of immigrants who came from Eastern Asia and Western Europe.

America peopled from Western Europe and Eastern Asia.

It is possible that not only the Phœnicians may have had such intercourse as I have mentioned with the American Continent by means of the navigation of the Atlantic Ocean, but the Arabians also may have communicated with it by crossing the same ocean, after coursing the western Indian Ocean, to the Cape of Good Hope. They, like the Tyrians, understood the art of *night-sailing*; and Vasco de Gama found them using the astrolabe and compass, and navigating the Indian Ocean in ships in every respect as good, and well furnished with nautical instruments, as the best of the Portuguese. The Baron Alexander von Humboldt, in his "Critical Examination of the History of the Geography of the New Continent," vol. i., has shown that, long before the voyage of De Gama, the Arabians had maps representing correctly the configuration of Africa, on which what is now the Cape of Good Hope is named *Cape Dsiab*; and that, ten years before the voyage in which he doubled it, Pedreiro de Covilhan * wrote from Sofala, in South Africa, to John I., King of Portugal, that he had learned from the Arabians Africa could be circumnavigated; and he described the course by which ships from Portugal could reach Sofala and Madagascar. But the principal settlements of the ancestors of the aborigines of the Pacific coast of the American Continent

Intercourse with
the Arabians.

The Arabians
used the com-
pass and the
astrolabe.

Cape Dsiab.

* Covilhan's letter to John I. in regard to the circumnavigation of Africa.

were derived from the ancient dominion of the Malays, who from the earliest ages have been, as they are now, a very migratory and commercial people, but whose power and civilization, like that of the Arabians, has waned greatly in modern times. As a race, Cuvier was unable to separate them, as he says, "from their neighbors on both sides, the Caucasian Indians, and the Mongolian Chinese;" nor from the American aborigines, of whom he states, correctly, I think: "They have no precise or constant character which can entitle them to be considered as a particular race. Their copper-colored complexion is not sufficient. Their general black hair and scanty beard would induce us to approximate them to the Mongols, if their defined features, their noses as projecting as ours, their large and open eyes, did not oppose such a theory, and correspond with the features of the European." In these respects they resemble the Malays, from whom they have received much of their blood, and show their mixed descent from various ancient races.

Immigrants from Malacca.

Cuvier's theory that the Malays and North-American Indians and Peruvians are the same race.

The importance of the empire of the Malays, before the age of discovery inaugurated by Columbus and his successors, may be understood from descriptions of it given by the Arabian geographers of the middle ages. El-Masudi,* who wrote in the tenth century, described it as lying between the dominions of India and China, and as an empire whose splendor

* El-Masudi's account of the ancient Malays.

and high civilization were greatly celebrated ; and he says : “ The population and the number of the troops of this kingdom cannot be counted, and the islands under the sceptre of its monarch [the The Lord of the Sixth Sea. Mahrajh, the Lord of the Sixth Sea] are so numerous that the fastest sailing-vessel is not able to go round them in two years.” At one time this The Ja-ba-din of Ptolemy. empire, called by Ptolemy and Marco Polo *Ja-ba-din*, included the peninsula of Malacca, Aracan, Chittagong, the country on the Lower Ganges, and the coast of Coromandel, the Islands of Sumatra, Java, the Celebes, Borneo, and all the others between Australia and Eastern Asia. While traces of the colonies and ancient commercial power of the Malays are found in the Indian Ocean, and on the eastern coast of Africa as far as Madagascar, and the Isles of Bourbon and Mauritius in the Southern Hemisphere, whose aborigines are of Malayan descent, their descendants, with much of their language, are found on all the islands between Asia and America, and, on the new continent, among the most civilized of the natives discovered by the Spaniards in the sixteenth century.

Pickering, the learned ethnologist of the United States Exploring Expedition commanded by Lieutenant Wilkes, during a three-years' voyage, who had an excellent opportunity for comparing the different races of the Pacific Ocean and the opposite shores of the continents separated by it, thinks that all the copper-colored aborigines of North and South Amer-

ica are of Mongolian descent, except the Esquimaux (who seem to be the same race with the Northern Asiatics) and the natives of the northwest Pacific coast, like those about Nootka Sound, and the aboriginal Peruvians and Chilians, whom The Nootka Indians Malays. he supposes to be of Malayan extraction; and he has made that distribution of them upon the ethnographical chart published with the maps of the report of the expedition. His opinion is entitled to great respect, and is proved to be correct by the celebrated missionary Williams, whose work on the South-Sea Islanders Pickering had not The South-Sea Islanders Malays. probably seen, nor does he seem to have known the exceptional history of the Mandan Indians. The learned and useful Williams, who, after a missionary life of thirty years among the tropical islands of the Pacific Ocean, was massacred by the savages of one lately discovered, was not only a devoted Christian hero, but an elegant scholar, and one who had devoted much attention to natural science. He discovered, and even converted to Christianity, some of these islands before they had been placed upon any European or American map. A work which he published, "The Missionary Enterprise," embodying his researches, and the narrative of his life in the Pacific for many years, is a valuable contribution to the science of ethnology. He has proved conclusively that all the *copper-colored* occupants of the Sandwich, Society, and Friendly Isles, and of all the other groups of that ocean,

and also the *Quichuas*, or Incas Indians of Peru, are

The Quichuas of Peru Malays. of Malayan origin. Their complexion and anatomical traits are the same; and

their languages are all dialects of those of Malacca, as he has proved by placing a sufficient number of common words from each of their tongues in parallel columns. The Malays, and their kindred in these clusters of isles, are, as their ancestors were in past ages, as nautical in their habits as the ancient Tyrians and Northmen. Williams made the important discovery that all the larger islands of the Pacific

The first occupants of the Pacific isles were negroes. were formerly inhabited by black and woolly-headed races of the negro type, who have been exterminated by the copper-colored warriors, except in the Feejee and Solomon's Isles, Australia, and a few other localities.

This seems to confirm the truth of the assertion of the old historian and geographer, El-Masudi, who, in his work "Meadows of Gold and Mines of Gems," says that the people of the great island empire, *El-Zanij*,

The aborigines of Ja-ba-din were negroes. in the tenth century were *black*. It cannot be doubted that the oldest inhabitants

of the tropical regions of the Eastern Hemisphere, including Southern Asia, Central Africa, and the islands of the Pacific and Indian Oceans, were *black*.

The earliest people who occupied this torrid belt, and who perhaps were long exposed to the

The torrid zone first peopled by negroes, except America. fiery climate before they were reached by other families of the human race, were

the first who were colored black by its influence.

The proof is clear that even a part of the continent of America was thus *preoccupied* by black men,* who also inhabited the most of Africa and the great island of Australia, and other tropical localities suited to their condition ; for in some of them their descendants still survive as an unmixed race ; others yet are found *mixed*, as *zamboes* or mulattoes, with yellow or white men, who have followed them and settled in their aboriginal abodes, while the traditions of other places preserve distinct or vague accounts of their extermination. The negroes of Darien, discovered by Nunez in 1503, are now mingling with other races. A careful examination of the past history and present condition of the three principal races of mankind, the white, yellow, and black, presents one fact which must excite painful emotions in the heart of the enlightened philanthropist. *The black race of Cuvier, the unmixed woolly-headed negroes, are subjected everywhere to a process of extinction.* They have been diminishing, *even in Africa*, for several centuries ; and the recent efforts of philanthropy to improve their condition seem to have a tendency to accelerate their total annihilation. The missionary Williams found only their bones, and the traditions of their extirpation, in the larger groups of the islands of Polynesia. They are continually diminishing in Melanesia. Not one is left in Van Diemen's land ; and the white settlers of

* Mentioned in Note V., Lecture IV. See also the appended lecture on the aborigines of America.

Australia are rapidly destroying the remnants of them in every part of it. Denham and Clapperton's expedition. Clapperton were sent by the Government of Great Britain to ascertain whether the river Niger, described by Mungo Park, was the White Nile mentioned by Bruce, as the main branch of the great river of Egypt. They crossed the Desert of Sahara, passing through Fezzan to Bornou, and explored Lake Tchad, and the rivers of its large basin; and ascertained that the Niger had no connection with this lake, or with the Nile. Clapperton then turned westward, and penetrated to the very heart of the unknown region of tropical Africa, and visited Saka-too, the capital of Nigritia, or Soudan, in 1825. To his surprise, he found the sultan of this kingdom an enlightened sovereign, not a negro, but extending his conquests in all directions with his armies of Fùlans, or Felatahs, a mixed yellow race. He was then consolidating his empire, and writing a history of the nations composing it. He gave Clapperton a map of the Niger, showing that it rose in the west of Africa, made a great curve through the interior, and flowed again west, and emptied by many mouths into the Bay of Benin. Clapperton died on a second expedition; and his attendants, the brothers Lander, completed the exploration of the Niger to its mouth. Since that time the Felatahs have greatly extended their conquests, and continued the work of extermination among the

The Nigritians
not negroes.

The conquests
of the Felatahs.

How the mouth
of the Niger was
discovered.

blacks. Bruce in 1775, and Harris in 1842, found the long-haired, yellow Abyssinians engaged incessantly in wars of extermination with the inferior and uncivilized negroes. The Negro extermination by the Abyssinians. more recent African explorers, Livingstone, Burton, Speke, and Baker, show that through the instrumentalities of tribal wars between the savage aborigines, aided by the Turks and Arabs, for the profit of ivory and slaves, the process of extinction is progressing swiftly in every part of Africa occupied by the negroes. They have been Destruction of negroes by tribal wars and the slave-trade. totally exterminated over vast areas, and are now confined mainly to the tropical portion of Western Africa on the Atlantic coast. Mixed races, descended from the ancient Cushite Arabians, the descendants of Misraim from Egypt, of nomadic Arabs, and Phœnicians, mingled with those of all the commercial nations who colonized the coasts of the continent bordering upon the Atlantic and Indian Oceans, and the shores of the Mediterranean and Red Seas, before the Christian era, and mingled in modern times with the Portuguese, Dutch, Turks, French, and English, possess all the rest of the aboriginal dominion of the primeval blacks. From Egypt, Cape Colony, Abyssinia, Aden, Zanzibar, Algeria, Morocco, Senegambia, Liberia, and Benguela, from all the coasts and cardinal points, the homes of the negroes are surrounded by a chain of the settlements of mixed and civilized races. This is to their existence a circumventing line of fire, contracting continually, and threatening

soon to consume the last of the aboriginal blacks in their fatherland. Brazil and Cuba may possibly ex-

Negroes diminishing everywhere but in Brazil and Cuba.

hibit exceptions to the sad prospect of their rapid decline in the New World,

where they were introduced by the slave-trade among the European colonists. While in a state of slavery, through the mixed influences of Christian duty, and the interest felt in them as valuable property, they were protected by their owners, and multiplied greatly. Since their liberation in the British, French, and Spanish colonies, and the Hispano-American republics, and our own country, they

Their diminution since their emancipation.

have decreased in numbers, and are diminishing daily. I sincerely hope that

our gloomy anticipations about their temporal destiny may not be verified. A divine interposition alone can arrest their decline. We can look to nothing but a display of wisdom and power almost miraculous to save this race from total extinction. The light of history gives us no hope that a doom which seems inevitable can be averted. The annals of nations show this painful fact: where a superior mixed race comes in contact with one whose condition is

The effect of a contact between an unmixed and a mixed race.

that of an unmixed type of mankind, and whose grade of civilization is fixed, the conflict of interest between them is illus-

trated by the ancient fable of the *brazen* and the *earthen pots* tossed together in the waves.

The fable of the brazen and earthen pots.

However disposed the stronger may be to assist the weaker, *a contact* with it is destructive. A

hostile blow will dash it to pieces. An embrace of kindness will dissolve it into dust. There is no safety for the weak but in a total separation from the strong. The negroes of the United States are now free, and fairly in the race of competition for all the prizes of wealth, wisdom, power, and fame, with the mixed races from Europe and Asia, who form the mass of our people. Heretofore, whenever one of these inferior types of mankind has been forced into competition with a superior mixed race, in the contest for superiority, it has faded away from the face of the earth. The missionary Williams, I have quoted already, laments the fact that even the copper-colored races of the tropical Pacific suffer the same decay by an intercourse with the civilized people of Europe. Although some of these islanders had never imbibed any of the vicious habits of Europeans, and were strictly moral and religious, yet they sickened and died mysteriously under the influence of the change of life wrought by Christian civilization. The Sandwich-Islanders have been enlightened and Christianized for more than fifty years. They are more free from vice than the people of England and the United States. They have not been enslaved or oppressed. They have had no destructive wars, but have enjoyed a long peace under the protection of the great maritime powers of Christendom. They have intermarried extensively with the civilized mixed races; yet they have decreased, in less than a century, from a population of 500,000

Diminution of
the yellow race
of the Pacific.

to less than 70,000. The copper-colored races of the Western Hemisphere, and of the islands on both sides of it, seem to be diminishing and passing away under the influence of "the bearded white men," as the negroes of the island empire of the ancient Malays perished by their sway. We cannot predict what the future may have in store for the negroes of America. The immediate effect of their emancipa-

Diminution of
the negroes by
emancipation
in the United
States.

tion in the Southern States has been to diminish their number fearfully. On one healthy plantation in Hinds County, Mississippi, from 1860 to 1865, there had occurred among fifty of the negro slaves only six deaths in five years. They were generally pious members of different churches, and had been the slaves of the same Christian family, as their ancestors had been before them for several generations. They were emancipated, and left their owners in May, 1865, and, before January 1, 1866, thirteen of their number died. In January, 1868, only nineteen of the original fifty were alive. The most of the children had died, and only a few others were born. They were generally excellent servants. They obtained sufficient employment for good wages. But their condition was changed. They were in competition with the whites, and they died; how, and by what causes, I cannot say. I mention this as *a representative*, and not *an exceptional*, case of many others which have occurred under my own observation. The census of 1880 will decide which of the two views of the question in regard to "the future

of the negro" is correct. The darker view is that taken by Prof. Owen, in Brande's "Dictionary of Science, Literature, and Art."* He says: "It has been contended, over and over again, that the peculiar circumstances under which [the negroes] have been placed sufficiently account for [their] condition, for their want of literature, and their low civilization. That great weight should be attached to the considerations now mentioned is true; but we do not think

Prof. Owen's
view of the
character of the
negro.

they are sufficient wholly to account for the existing state of things. Egypt was, at a very remote period, the principal seat of science and of art; and the negro nations were in contact with it, and had pretty extensive intercourse with the Egyptians, and also with the Phœnicians, and afterward with the Romans. But they seem to have profited little or nothing by this association. And while the people of Greece, Asia Minor, and Magna Græcia, raised themselves in a comparatively brief period to the highest pitch of civilization and refinement, the negro nations of Africa continue, *without a solitary exception*, down even to the present day, immersed in *the grossest barbarism*. Surely, however, during the space of three or four thousand years, opportunities must have been afforded to some of them to make some advances. *But, if so, not one of them has had the sagacity to profit by them. Africa, in fact, does not seem to have pro-*

* Brande's "Dictionary of Science, Literature, and Art," Article Negroes.

duced a single great man. She has had no Hercules, no Minos, no Theseus, no Confucius, no Manco Capac. Among all the varieties of superstition which exist in it, we look in vain for *hero-worship*—for the divine honors paid in rude but improving nations, in other parts of the world, by the public gratitude to departed heroes, legislators, and authors of important discoveries in the arts. . . . The inevitable conclusion is, that every variety of *the negro type* is indicative of mental inferiority, and that ferocity and stupidity are the characteristics of those tribes in which the peculiar negro features are found most developed. . . . We do not form our opinion as to their inferiority on their configuration and appearance; but on the fact that, while numberless European and Asiatic nations have attained to a high state of civilization, they continue, with few exceptions, in nearly *primeval barbarism*. It is vain to contend that this is the result of the unfavorable circumstances under which they have been placed. An intelligent and enterprising people contend against unfavorable circumstances, and make them become favorable. . . . From the remotest antiquity down to the present day they have been the ‘hewers of wood and drawers of water’ for others, and have made little or no progress; and the only legitimate inference from this lengthened induction seems to be, that *they are incapable of making it*; that civilization will

The negroes have never produced a great man.

In the superstitions of the negroes, there is no hero-worship.

not spring up spontaneously among them ; and that, if it ever grow up, it must be introduced from abroad, and fostered and matured under foreign auspices." This view of the subject is indorsed by the learned association of distinguished British professors, including such men as the two Merivales, Profs. Lindley, Gwilt, McCulloch, and others, who published this work. It is supported by an array of stubborn facts which make it peculiarly gloomy and almost hopeless ; and I wish that I could irradiate it with some light derived from the history of the negroes of Jamaica, who have been eman-

The negroes of
Jamaica.

cipated, and living under the protection of the most powerful and enlightened Christian government in the world, since 1834. Yet, with all the advantages of British subjects, in one of the most fertile and favored spots on earth, they have made no progress ; they have remained poor and ignorant, and have impoverished an island which was almost an earthly paradise when occupied even by the indolent and amiable Caribs. We can cast no cheering ray upon the dark prospect from the history of the race in the island of Hayti. There, after having been enlightened and Christianized by the Spaniards and French, they were

The negroes of
Hayti.

emancipated by the French Republic in 1794, and have had full possession of this magnificent island for seventy-six years. Instead of improving their own condition, and their enviable abode, their savage "stupidity and ferocity" have kept them involved in

perpetual intestine brutal strife ; and after a trial of more than two generations, in the very centre of the great focus of the trade of the West Indies, in daily intercourse with all the great commercial nations of Christendom, and under their protection, with all the light of the highest civilization of the earth blazing upon them continually, they exist in diminished numbers, and are daily diminishing, and sinking into lower depths of ignorance, poverty, and barbarism—verifying, it is to be feared, the conclusion of Prof. Owen, that they are not only an inferior and unimproved race, but that *they are incapable of improvement*. In the British and American colonies of Sierra Leone and Liberia they have

The negroes of
Sierra Leone
and Liberia.

been aided and supported by the power of Great Britain and the United States, and the outpourings of the sympathy and liberality of the Christian churches in both countries, for the half of a century. Yet, they have not become self-supporting, but have still to be supplied with missionaries, teachers, implements, arms, food, raiment, and money, from the white men of Europe and America. It may be safely asserted that the same number of white colonists, from either Great Britain or the United States, such as settled Jamestown, Texas, and California, with the same amount of sympathy and material aid, would have spread their power and influence from Cape Palmas and Monrovia, in the last fifty years, over the whole interior

of Africa, and reduced every fertile region of it into obedience to their sway.

The experiments of all the ancient civilizations have been made upon this race for three or four thousand years in the Old World. They have been brought to the New World and trained as slaves in the arts of civilized life, with the examples of refined Christian gentlemen before them continually, as authoritative masters and teachers, from every country in Europe, and native Americans, for two hundred years. They have been civilized, Christianized, and sent back to Africa, and formed there, in a habitat in every respect suited to their race, into a well-protected republic, and they have made but little progress. They have been emancipated in the British West Indies, and not only elevated to all the privileges of British subjects, but they have been supported and encouraged at an expense of many millions of pounds sterling in gold, and they have retrograded. In Hayti they have been left unfettered for three-quarters of a century, to establish whatever forms of government they pleased, and the mightiest powers of the earth have combined to protect them in doing their own will. They have had negro empires, republics, and anarchies; and, so far from improving their country, they have relapsed into total barbarism, and transformed the grand and lovely island of Hispaniola into a *human menagerie*. Only one other experiment remains to be tried. That has been inaugurated at an expense of the lives

of more than 1,000,000 of white men, and over \$2,000,000,000. It is now in progress,

The experiment of emancipation in the United States, and the extraordinary privileges conferred on the negroes.

supported and directed by the whole power of the Government of the United States. Its result is in the unknown future. They are not only emancipated from

slavery, after having been taught practically every kind of labor in agriculture, in mechanics, and in all the arts of our country, and instructed in all the forms and doctrines of Christianity, but they have been clothed with all the rights of citizens of the United States, and favored with peculiar and extraordinary privileges, such as were never conferred before upon any of the freemen of America. Special and liberal

The white people taxed for their education.

grants of money are made from the public Treasury for their education. They are now subjected to the fearful experiment of a competition in the race of life, for all its prizes, with the white people among whom they are mingled, with all the advantages in their favor. In addition to the strong support of the United States Government, they are also favored with the prayers and heartfelt good wishes of the Christians of every land for their success, and it may be safely asserted that they

They have the sympathy and material aid of their former masters.

also have the sympathy and aid of their former masters. Surely they ought, under these favorable circumstances, to redeem the character of their race, and become a great and prosperous people. If they have been wronged by the people of the United States, all their wrongs

have been thoroughly redressed. Never, since the emancipation of the Israelites and their settlement in the land of Canaan, have any people been so highly favored and abundantly blessed. Will they avail themselves of their advantages and prove themselves worthy to take rank among the most honorable of the descendants of Adam? In tracing the immigrations of men to America over the Atlantic and Pacific in ancient and modern times, and in witnessing the streams of humanity continually pouring upon our eastern and western shores, and mingling with the population of our country, it cannot be doubted by any that specimens of every variety of the human race have been brought together, and moulded into the common mass of American citizenship; and these "American citizens of African descent" have equal rights with all others, and superior privileges to the rest. I will not venture boldly to predict whether they will imitate the best examples set before them, or follow the worst. If they prove their gratitude to God for their blessings by showing themselves contented with their happy lot—if they "deal justly, love mercy, and walk humbly" before Him, and labor industriously to earn an honest support for themselves, and educate their children to love the Lord and to keep His commandments—they will prosper. But, if they aim at *superiority*, and show the discontent, restlessness, vanity, ambition, avarice, and rage of idle, ignorant, and wayward children, as they have done in Jamaica and Hayti;

and, just emancipated as they are from slavery, and all the depressing influences of the ignorance, superstition, and hereditary barbarism of four thousand years, if they presume to grasp the reins of power and to govern the *white people* of America, who have been steadily advancing in all the arts and sciences, and improving in all the wisdom and refinement of Christian civilization for eighteen centuries, it requires no inspired prophet to tell them that, in less than fifty years from this date, a group of them in any of the cities of the United States will be as great a curiosity to the white people of that day as a gang of wild Indians are now to the children of a New-England village; and in the next century the whole black race will have faded from our shores like the shadow of a dark cloud which will be seen no more.*

The fate of the negroes if they attempt to rule the white people.

Before proceeding to show how the streams of human blood, flowing in the veins of the different descendants of Adam, who were the patriarchs of nations, were mingled in the Old World by tides of emigration meeting upon the same spots, by the conquests of some by others, and the blending of the victors with the vanquished, I will direct attention to the fact that the settlement of the islands of the Pacific, and even of the western shores of America, was not only an easy task to the nautical Malays of the empire of "the islands of the sixth sea," but, in some cases, an unavoidable consequence of their

* See Note III.

adventurous life upon the ocean. The strong and regular winds which blow across the Pacific facilitate the voyages of all who attempt its passage. The inhabitants of it use now, as they have done from "time immemorial," vessels admirably adapted to its navigation. They still send "ambassadors in *vessels of bulrushes* upon the sea."* Their "double canoes," made of the hollowed trunks of trees strongly lashed together, and furnished with what are termed "*outriggers*," formed of light and buoyant logs of *bamboo* attached to their gunwales, and projected a considerable distance beyond their sides, cannot be capsized. The *bamboo* is the *Arundo giganteus* (the gigantic bulrush); and, when the boat is rolled by the waves from side to side, these *outriggers* rest upon them and prevent it from turning over. They are dexterous anglers and expert swimmers. The feat of Leander, in swimming across the Hellespont from Sestos to Abydos, is often outdone by the almost amphibious natives of the Polynesian isles. Embarked with their families in their double canoes, and supplied with their calabashes and angling-implements, they live upon the ocean's breast, which affords ample nourishment for all their simple wants. The copious showers, which fall during the prevalence of the monsoons, furnish them with an abundant supply of water. So free is that ocean from storms that it has acquired the name it bears, *the Pacific*. Far out of sight of land, they

Facilities for
navigating the
Pacific.

* * Isaiah xviii. 2.

are in no great danger of any accident, except that of losing their *reckoning*. They are very liable to this misfortune from the want of a compass, a knowledge of whose use their ancestors probably possessed, but which they have lost. If they miss their course, which often happens, their lives are not much imperilled, but it is then almost impossible for them to regain their native isles. They can live upon the fish, and the cocoa-nuts and other food afforded by the surface of the deep, and drift before the gale until it

How the yellow race people islands by accident.

wafts them to America, or to some island west of its shores. Captain Cook found at Watteoo three natives of Otaheite, who had thus lost their ocean-path, and had been blown away 550 miles from the land of their birth. Kotzebue found on one of the Caroline isles a native of Ulea, who had been driven by the wind, after a voyage of eight months, to this spot, which is 1,500 miles from his native isle. He and his companions had performed this remarkable voyage in an open single canoe with outriggers. Numerous similar involuntary exploits of this maritime race are related by Captain Beechy and other explorers. A singular case is mentioned in the official narrative of the Japan Expedition, conducted by Commodore Perry.* On his return-voyage, in the open West-Pacific Ocean, he took on board a boat-load of twelve savages who called themselves *Sillibaboos*. They could give him no intelligible idea of the island

The lost Sillibaboos.

* Japan Expedition, Narrative of Commodore Perry.

whence they came, and which has not been discovered. They were lost, and were drifting before the wind, they knew not where, and had been wandering upon the unknown waters many days; but they were in good condition, and supporting themselves well upon the produce of the prolific ocean which swelled around them. Amid the numerous clusters of islands which gem its bosom, they would probably have soon found a new home. These Mongol and mixed races from Asia have been blended in ages past with others from Europe, descended from all the sons of Noah; and combined with them to form what some ethnologists term *the American race* of aboriginal men. After a careful survey of the ever-flowing currents of humanity in by-gone centuries, and their present courses, as they move and commingle in both of the hemispheres, it is impossible for an enlightened reasoner to conclude rationally that the ancestors of this mixed race were men and women created originally, and placed at the beginning of the human era, *on this continent*, as Adam and Eve were in Eden. Before reverting to the process of the admixture of the descendants of the three sons of Noah, which history assures us has been continued in the Old World from the days of Nimrod to the present age, I will point to a few of the changes which have occurred among the American aborigines, and which are in progress now. In what is termed the *nomadic*, or *hunter state* of society, mankind wan-

How men wander in the *hunter state* of society.

der, and change their habitats on great continents most extensively; and in this condition, with the exception of the semi-civilized Indians of Mexico and Peru, most of the aborigines of North and South America were found in the fifteenth, sixteenth, and seventeenth centuries; and many of them are yet nothing better in the grade of civilization than rude hunters, and nomadic and savage bandits. It is estimated that eight hundred acres of "hunting-ground," or uncultivated *pasture-land* of wild forest and prairie, will furnish no more food for men than one acre of well-tilled soil. Immense areas of the wilderness are required to subsist clans of wandering Tartars, and their savage kindred, the Comanches and Cunchos of North and South America. In this phase of the history of nations, and which is usually the first in their progress to a higher grade of civilization, in the *hunter state*, they spread over the earth most rapidly. In our lifetime, we have witnessed

Changes of the
habitats of the
American Indians.

changes in the habitats of our aborigines which have astonished us; and which enable us to understand how this race, in a period very brief comparatively, may have overspread the whole continent, from Behring's Strait to that of Magellan. I have already presented the case of the Mandan Indians, evidently a mixed race of Welsh and aboriginal descent, discovered in the heart of North America in 1805. The *Shawnees*, who call themselves *Showannahs*, of which the word *Savannah* is a corruption,

The wanderings of the Shawnees.

once dwelt upon the banks of the *Savannah*, or *Prairie* River, in Georgia, and were one of the tribes of the Creek nation. On account of some difficulty with the other associated tribes, they migrated northward, and settled upon the Ohio River, which they named *Showannah*, after their native stream. There they became a powerful nation of many tribes, whose warriors defeated the frontier settlers, and the troops of the colonies and the United States, in many bloody conflicts. Under the command of their celebrated chief, the "*Little Turtle*," they almost annihilated three considerable armies in the battles of the *Blue Licks*, *Harmer's* and *St. Clair's defeats*. It is interesting to learn what and where are the Shawnees now. In 1851, in the little town of Washington, on the Brazos River, in Texas, I saw one of the descendants of these terrible warriors standing in the main street, dressed in the primitive buckskin and beaded costume of his tribe, holding the bridle of a mustang pony, which was heavily loaded with *venison-hams*, which he was selling for powder, lead, and whiskey. I learned from him that the sole remnants of this once formidable nation, less than two hundred souls, were camped on the Navisoto River, a few miles distant. From the Savannah to the Ohio, and the northern lakes, to the west of the Mississippi, and south to the Arkansas, and then to the Brazos, they had wandered, "scattered and peeled" by wars, dissipation, the small-pox,

The Showannah, or Prairie River.

Little Turtle's victories.

The last of the warriors of Little Turtle.

and famine; and they are now I know not where.

The Delawares. The Delawares, who once possessed that

State, and much of Pennsylvania and New Jersey, settled in diminished numbers with the Creeks, Chickasaws, Choctaws, *Chelokees*,* and other tribes in the Indian Territory, were nearly extinct at that time; and a "little handful," all that I knew of them, were camped on the Colorado River, above the city of Austin, where the deer and other game were abundant. The fierce Seminoles of Florida were below El Paso on the Rio Grande, and committing depredations on both sides of the river upon the citizens of the United States and the Republic of Mexico. The Choctaws and Chickasaws carried many slaves with them from Mississippi. Some of their chiefs owned several hundred. By concubinage, or marriage with the Indians, the black and woolly-headed African type of mankind soon disappears. The mixed descendant of the two races in the first generation is a stout *mahogany*-colored man with In-

Indian negroes.

dian features, and long, jet-black, curling hair. In the second generation, his complexion is a *light cinnamon*; his black hair is straight, and all traces of the negro type, in form and

Negro blood
extirpated by
the Indian in
the third gen-
eration.

feature, are so faded as to be scarcely distinguished; and, in the third generation, every mark of the African has disappeared, and the yellow type complete has resumed its

* The proper word for *Cherokee*. The letter *r* is not in any Indian dialect.—See Note I.

supremacy, and no difference can be ascertained between the Indians of mixed and pure blood. In the admixture between the negroes and whites the process of the extirpation of the negro type is slower, and slight traces of it may be sometimes detected in the mixed offspring of the fifth generation. These are well-known facts which apply to the general rule, to which there may possibly be some exceptions.*

Negro blood expelled by the white in the sixth generation.

I will now point attention to a few well-attested cases of the admixture of races in the Old World, and an examination of them will be intended to prepare the mind for these conclusions.

Where the complexion of a race is white, the hair light yellow, pale brown or flaxen, or red, like that of some of the ancient northern Europeans described by the Roman historians,

The admixture of races in the Old World.

it may be safely concluded that they have long occupied regions whose climate is very cold, like that of the frigid zones, or the elevated plateaus of the Himalayas or Andes. If, on the contrary, the skin and hair of a people are black, they have dwelt for many ages in the torrid zone. Aridity of the atmosphere, combined with intense solar heat, will intensify the carbonizing and blackening process. Such an effect would necessarily be produced upon the skin by the hot and dry atmosphere of Africa, contiguous to the Desert of Sahara, or the portions of tropical India and Australia, which are subject to the action of long

* See Note II.

droughts, and the highest temperature which the sun can produce. If dark-skinned people are found living in cold regions, like the negroes of New England and Canada, or if white people are inhabiting the torrid zone, such as the British in Guiana or Australia, we may be sure that neither the blacks nor whites have long occupied the spots where they now reside. They are *exotics*, not yet acclimated to their present abodes. The many colors which mark the skins, hair, and eyes of the civilized nations of Western Europe, and the United States of America, prove that the population of these countries is a mixture of the inhabitants of various climes, or the descendants of the aborigines of the frigid, temperate, and torrid zones, who have mingled together in times comparatively modern, and that they have not occupied the same habitat, and have not been separated from other nations long enough to be moulded into one common type of humanity by the climate and other influences of their present localities. A very brief review of the history of a few of the countries occupied by these mixed races will be sufficient to verify the above conclusions.

Plutarch, in his life of Camillus, says that the Gauls were originally *Celtæ*, or *Kelts*, from the North of Europe. Livy, and other historians describe them as a yellow-haired, blue-eyed, white-skinned people, and these peculiarities, which distinguished the ancient Germans, and all the primitive inhabitants of Scandinavia, prove

The *Celtæ*, or
Kelts.

that they had long dwelt in the neighborhood of the Arctic Ocean, and had been bleached by a very cold climate for many centuries before they issued from it to find a home in the warmer regions of the south. They were doubtless the primitive occupants of Northern Russia, Sweden, Norway, and Denmark. They settled at an early period Ireland, Scotland, Celtiberia in Spain, and other countries, and were followed, century after century, by other descendants of the same white hyperborean ancestry, who, swarm after swarm, under different names—Cimbri, Teutons, Catti, Goths, Saxons, Normans, Northmen, and Danes—poured forth upon Southern Europe from the same prolific source, which caused the region to be called, by different historians, “the northern hive” and the *officina gentium*, the workshop and *manufactory of nations*. One of these Celtic hordes, under their chief, *Brennus*, after their expulsion from Rome by Camillus, Livy tells us, marched around the Adriatic Sea, traversed Greece, crossed the Hellespont, and conquered that part of Asia Minor which they named *Galatia*, where they were afterward vanquished by Lucullus, and became mingled with the Romans, the descendants of the Grecian colonies, Phœnicians, Persians, and other ancient nations; and where, since the Christian era, their infinitely mixed progeny have been commingled with other races which have swept over Shinar,

The Hyperboreans.

The officina gentium.

Brennus and his Celts.

Galatia, the land of the Gauls.

the birthplace of the patriarchs of nations innumerable, and around the base of Ararat, on whose summit the ark of Noah rested, and from which his

Who are the Caucasian race. three sons issued, whose offspring have overspread the whole earth. In that re-

gion there seems to have been the greatest compounding of the various races of mankind. More

A hundred and twenty languages of the Caucasus. than a hundred and twenty different languages are spoken by the Circassians and

Georgians, who are the living representatives and lineal descendants of all the sons of Noah; and the effect of the mixture of the blood of all the famous nations of antiquity seems to have produced in them the finest physical development of the human form, and made them the models of the first in rank of the different races of mankind—the *Caucasian*—to which their superiority has given their name.

Whether the white Celts are descended from Japheth alone is uncertain; but it is very certain that

The greatest mixtures of races make the best Caucasians. *there* they mingled with the descendants of all the sons of Noah, as the Celtic Saxons, Normans, and Danes, Goths, and

Visigoths, did in Western Europe. In Northern Africa, the Celtic Goths became merged with the Arabs, Moors, Carthaginians, Greeks, Romans, and all the races whose ancestors left descendants to be blended with theirs. This mixture of the blood of all the sons of Noah in Western Europe has resulted in the development of men of the Caucasian type

equal in form, and far superior in mental power, to the finest specimens of the human race now to be found in Circassia and Georgia. We hear the term *Anglo-Saxon* applied to the inhabitants of England, *Teutonic* to the Germans, and *Latin* to the Italians, Spaniards, and French. To attempt to designate these nations as *different races*, and to classify them as separate peoples, in the mind of an ethnologist, conversant with ancient and modern history, is simply absurd and ridiculous. These nations are alike admixed, and their blood is the same compound. Take the history of England as a part of the ancient Empire of Rome, which also embraced Italy, Spain, France, and Germany, and trace it from its conquest by the Romans to the present century; and its ethnology will be found similar in every respect with theirs. Julius Cæsar found the Britons living in clans, more or less civilized; some of them ruled by chiefs who wore horns, and were dressed in the skins of wild beasts, like the Indians of our Western prairies; some of these tribes used war-chariots, and improved weapons, and defensive armor. The Phœnicians had imparted their blood, complexion, and arts, to some of the southern tribes; and the dark-skinned Romans had to defend the northern part of England against the painted Picts and the Celtic Caledonians. The inhabitants of what is now England were moulded first into Roman civilized pagans, and then Christians. The Saxons and the Danes gave them

Are the British
people Anglo-
Saxons?

Horned Britons.

additional infusions of hyperborean blood, and improved their nautical skill. The Normans, of Scandinavian descent, conquered them, and polished their rudeness with the refinement and chivalry which they had acquired upon the continent in the course of a few centuries. At length the descendants of the Phœnicians, Romans, Caledonians and Picts, Saxons, Danes and Normans, all became incorporated, and mingled in the United Kingdom of Great Britain and Ireland. They are no more *Anglo-Saxons* than they are Roman-Phœnicians; but they are a great and progressive people, who have attained the highest point of Christian civilization yet reached by any portion of the human race. The same may be said of the other maritime powers of Europe who have risen, like them, from the wrecks of the Roman Empire. These people are, I have no doubt, all of British blood a chemical mixture. *one blood*, which has flowed into their veins from Noah, through the Egyptians, Phœnicians, Scythians, Greeks, Romans, and Scandinavians—making it a mixture, or chemical compound, which no ethnologist can correctly analyze and separate into its original elements. While this commingling of the blood of the three sons of Noah has occurred in every civilized country in Europe, the same thing has transpired in Eastern and Western Asia, and especially about the Hindoo-Koosh Mountains; and this process of admixture of race with race is going on continually. In view of these facts, the attempt to classify any of the civilized nations of

Europe as the descendants of either of the sons of Noah *solely*, seems to be as vain as the endeavor to support the theory of the descent of the various nations of the earth from different pairs of original parents. They make it appear more probable that all mankind are of "one blood," and that they inherited their common humanity from one source.

The blood of all nations in the highest state of civilization, a mixture of that of all the sons of Noah.

NOTES ON LECTURE V.

I. The letter *r* is not sounded in any of the aboriginal dialects of the North-American Indians. The sound of the letter *l* is usually substituted for it. The Cherokees pronounce the name of their tribe *Chel-o-kee*. The Chickasaw name for the Tennessee River was *Chel-o-kee-Ok-hin-nah*—the *River of the Chelokees: Okah—water; hinnah—a path*. Path of waters, or *Ok-hin-nah*, was their word for a large river; *Hatchah*, a *small river*. *Bogue*, a *creek*, or the prefix *Ok*, with the broad vowel-sound of *a* or *ah* omitted, meant water of any kind; as *Ok-kap-passah*, *cold water*. The frequent occurrence of the word in the Creek and Seminole names of streams, as *Ok-conee*, *Ok-mulgee*, prove the relationship of these tribes with the Choctaws, Chickasaws, and Alabamas. The sound of *Okah*, reminds us of the Latin *aqua*, the Spanish *agua*, and the French *eau*. In translating the Scriptures into the Choctaw language, the spelling of the Saviour's name *Christ* had to be changed into *Klaist*, and *Cyrus* into *Silus*.

II. The perfect mingling of the blood of the Celtic and Scythian races is very slowly effected; and the colors of the eyes, hair, and skin of children of parents, one of whom is a Celtic blonde, and the other of the brunette complexion of the Scythians or Phœnicians, will be exhibited by their respective

hues for many generations. If a husband and wife have hair, eyes, and skin, of the same color, but if the ancestors of one or both of them were of different races, some Celtic and others Scythian or Carthaginian, of six children which this husband and wife may produce, not one of them may resemble either parent; but *three* may possess the flaxen hair, blue eyes, and white skin of a Scandinavian ancestor who died five hundred years before their birth; while the *other three* may exhibit the black hair and eyes and the dark skin of Carthaginian or Roman progenitors who passed away before the conquest of England by the Normans. The same singular fact is exhibited by the descendants of Pocahontas and Sir Thomas Rolfe. Occasionally, in the ninth or tenth generation, a *brunette* will appear among the *blondes* of the same Virginia families, unlike her fair sisters or their parents, but differing in nothing distinctive of race from her famous Indian progenitrix. These facts are important, as they show what races destroy others by admixture, as the yellow and the white destroy the black; but the white and yellow intermingle without injury to either. Occasionally, the shades are perfectly mingled, as in hazel eyes, brown hair, and clear, ruddy, but not white-and-red complexions; or the admixture appears partially developed in black hair, with blue or gray eyes, or red hair with black eyes, and in other irregularities which mark the Caucasian race. The above remarks apply to the races occupying the temperate zones. In the torrid belts the mixture of negro blood is manifested in dark colors, which seem to attach themselves permanently to the races of mixed descent. The history of the descendants of Pocahontas and Sir Thomas Rolfe, and of other families who are the offspring of whites and Indians in the United States, proves that an admixture of the white and yellow races is not unfavorable to the evolution of the noblest specimens of mankind; but Prof. Agassiz is correct in his opinion about the deleterious influence of an infusion of negro blood with that of the Caucasian. In his "Journey to Brazil" (note, p. 293), he says: "Let any one who doubts the evil of this mixture of races, and is inclined, *from a mistaken philanthropy, to break down all barriers between them*, come to Brazil. He cannot deny *the deterioration* consequent upon an amalgamation of races, more wide-spread here than in any other

country in the world, and which is rapidly effacing the best qualities of the white man, the negro, and the Indian, leaving a mongrel nondescript type, deficient in physical and mental energy. At a time when the *social status of the negro* is a subject of vital importance in our statesmanship, we should profit by the experience of a country where, though slavery exists, there is far more liberality toward the free negro than he ever enjoyed in the United States. Let us learn the double lesson: open all the advantages of education to the negro, and give him every chance of success which culture gives to the man who knows how to use it; but respect the laws of Nature, and let all our dealings with the black man tend to preserve, as far as possible, *the distinctness of his national characteristics and the integrity of our own.*" Squier, who had every opportunity for observing the influence of the mixture of negro blood with the native and European inhabitants of Central America, where the amalgamation has been practised until it pervades the whole population more extensively than even in Brazil, agrees with Agassiz, and asserts that the effect of it has been to produce a people so sensual and degraded that they are incapable of self-government.

III. In regard to the origin of the black and woolly-headed races of tropical Africa, and also the yellow Hottentots and Kaffres of South Africa, I think the evidence is almost conclusive that they are the descendants of Ham, and that they emigrated from Egypt up the Nile, and were gradually dispersed over all that continent south of the great Desert of Sahara. *Cham*, or *Chem*, the ancient name of Egypt, means *black*. The word *chemistry* means the *black art*, or *Egyptian science*. It was discovered by the ancient black Hamites. The son of Noah, *Ham*, may not have been black; but all of his descendants who continued, generation after generation, to dwell in the hot and dry regions watered by the Nile, north of Khartoum, must have gradually been made so by the atmosphere, as others of his offspring were who settled Arabia and Southeastern India. The negroes who reached the dry portions of Africa, embraced in the Dutch and British possessions south of latitude 30°, while they have retained their negro features, have had their complexions gradually changed into lighter shades by a

residence of many centuries in a cooler climate. Any one who will examine the peculiar head-dresses of the negro tribes of the Upper Nile, and the leopard-skin ornaments worn by them, as represented in the plates of Sir Samuel Baker's "Albert Nyanza," will easily discover the striking resemblance of these savages to those represented by the ancient Egyptian artists in the catacombs painted in the times of Rameses II. and his successors, more than a thousand years before the Christian era. The ancestors of these tribes seem to have degenerated into as miserable wretches as Baker found their descendants at that early period. They plaited beads into their growing wool, and made helmets half artificial and half natural, and wore leopard-skins then as they do now, and were enslaved by the ancient Egyptians as they are by the modern occupants of the Black-land, whence they originally migrated. The evidence of Herodotus is conclusive that the ancient Egyptians were "black and woolly-haired." Their conquests and extended commerce, embracing many nations and races, had made them a people infinitely mixed before they were conquered by Alexander the Great, and almost transformed into Greeks by his successors, and finally absorbed by the Roman Empire, and mingled with the numerous races embraced within its vast limits. The woolly-headed negroes who were the earliest occupants of Egypt, Colchis, and the torrid zone of Asia, were not necessarily degraded savages, and even those who found their way across the Atlantic to the Isthmus of Darien, and who were discovered there by Nunez in A. D. 1503, may have been descended from merchants and navigators as civilized and enlightened as those who circumnavigated Africa in the reign of Necho II. Cut off from all intercourse with the most favored nations for many ages, any race will be liable to sink into the darkest and deepest barbarism. They are forced by their wants to subsist by the chase. They live by angling and hunting, and use the simplest and most primitive weapons made of stone, sharpened wood, and bone. Tribes of them are yet in this condition, while other portions of the same races are civilized. The adventurous emigrants to the ancient wildernesses of all the continents were hunters, and used implements which could be most easily made of stone, the skins and bones of wild beasts, and wood which could be fashioned into bows, arrows,

and spears. But while there is evidence to prove that prehistoric Greece, Switzerland, France, England, and probably every inhabited country in the Old World, were occupied by such rudely-armed pioneers, as was the case in America, it cannot be proved that there ever was what is termed a "stone age" that was universal, or that the continents were inhabited at the same periods of time only by races, or a single race of men, who were hunters. The woods of Greece were probably in the possession of such men, while Egypt and Mesopotamia were peopled with others in the highest state of civilization; and the ancient world presented the same contrasts which our own continent now exhibits.

LECTURE VI.

THE ARGUMENT FROM DISPARITY.

The Fourth Objection to the Scriptural Account of the Peopling of the World by the Descendants of Adam and Eve stated and answered.—Changes wrought upon Individuals of the same Family by the Influences of Time and Different Habitats.—The Revolutions of Empires revolutionize Civilizations.—The Yzeddies of Modern Persia compared with their Ancient Ancestors.—All the preceding Objections answered by the Singular History of the Inhabitants of Pitcairn's Island, and the Remarkable Voyage of Captain Bligh.—“Wild Bill,” of Mississippi.—The White Indian, of Texas.—The Influence of Habitats on National Character.—Mental and Physical Traits are hereditary.—Definition of the Word *Talent*.—Inherited Talents.—The Music of the Jewish Temple.—The Excellence of English Manufactures.—An Adaptability to Slavery, and an Invincible Love of Liberty, the Effect of Hereditary Influence.—The Difficulty of enslaving the People of the United States.—The Lesson taught by Grecian History.—“Righteousness alone exalteth a Nation.”—Sir Charles Lyell's Views of Chronology, as affecting the Doctrine of the Unity of the Whole Human Race.—Baron Humboldt's Decision of the Question.—The Saviour's Prayer, and His Prophecy.—Conclusion.

THE fourth and last argument against the biblical theory of *the unity of the human race*, as a family descended from the same original parents, which I will consider, is: *The disparity in mental endowments, or intellect, and the diversity in the grades of civilization exhibited by the white, yellow, and black varieties of mankind, make the opposite theory of their descent from different pairs of created progenitors more probable.*

In attempting to answer this, I will endeavor to present such facts and illustrations as will not only be a sufficient refutation of it, but which will also, I

hope, be found to embrace a satisfactory nullification of the three preceding objections which I have already presented and examined with all the candor and honesty of mind which I could possibly exert in the discussion of the important subject.

I will again revert to the case of the family in London, where a father is living whose sons are pursuing different avocations in the various colonies of Great Britain, on opposite hemispheres, and in separate zones. In British Columbia, Guiana, Australia, and at the Cape of Good Hope, they are acting the part of *founders of new nations*. They are now alike in physiog-

Dispersed Englishmen, the founders of nations.

nomy, language, manners, and customs, and they are living under the same government. If they live separated for thirty years, these sons will be slightly changed in complexion and manners, and their children will be greatly altered in many other respects from the native-born English who have never been out of London. But if these families should remain separated, and in these antipodal localities, for two thousand years—if these future twenty centuries of the world's history should be like the past—it is difficult to conjecture what wonderful changes would be wrought upon each group of their multiplied descendants. It is reasonable

Changes wrought by time and habitat upon the same race.

to suppose that great variations in anatomy, manners, and morals, and in all that constitutes national peculiarities and degrees of civilization, would appear in each separate cluster of the progeny

of these four sons. If, in all these future ages, they should remain separated upon these spots, without any intercourse with each other, or with any other people, the types of humanity they would present, if not similar, would probably be as various as those exhibited by the Nootkas and Esquimaux of British America, the copper-colored savages of Guiana, the yellow Kaffres of South Africa, and the woolly-headed black men of Australia, when these primitive races were first seen by modern Europeans. What has been, may be. It is said that "history repeats itself." The vast British Empire may share the fate of other great empires, and fall in ruins, from which may rise future empires, kingdoms, republics, anarchies, and clans of savages. If such great revolutions shall occur in the British Empire, as have marked the history of all the great empires of antiquity, the descendants of Englishmen, living on opposite sides of the earth, will probably exist in governments of various kinds, more or less civilized, while some of them may sink into the condition of the most savage and degraded. There is not a land, which has long been the birth-place and grave of nations, whose history, from its well-attested annals, back into its misty myths, and far into the oblivion which shrouds the ruins of the past, is not saddened by the evidence of such fearful and melancholy changes of the condition of its inhabitants, from high grades of civilization to the lowest depths of barbarism. The Yzeddies, or *devil-*

The revolutions
of empires.

worshippers, who inhabit the valley of the Euphrates, in the neighborhood of Babylon, are the descendants of the ancient mixed races who successively occupied Mesopotamia, and became blended together in this home of the patriarchs of all nations. Their ancestors were the Assyrians and Babylonians, the Medes and Persians, and the Greeks, ruled by such renowned monarchs as Shalmaneser, Nebuchadnezzar, Cyrus, and Alexander the Great—famous nations who discovered much, and possessed all that was known in past ages of science, literature, and art. These ignorant and wretched pagan nomads pitch their tents, and perform their diabolical rites in honor of Abaddon, amid the mighty ruins of the temples, palaces, and tombs of their forefathers, and they have no history or tradition of their origin better than other savages have retained of the renowned lands they inhabit. The wild Arabs know nothing of their ancestors, who gave us our algebra and numerals, and attribute all the cyclopean ruins of Heliopolis and Saba, constructed by them, to the work of giants and genii. The savage and semi-civilized Abyssinians gaze with ignorant wonder upon the obelisks and broken columns of Axum, where the renowned Queen of Sheba was enthroned, and swayed the powerful empire of Ethiopia. The wretched Copts of Egypt, the degraded Hindoos of Elephanta, the stupid Quichuas of Cuzco, and the half-naked savages of Yucatan and Central America, are all the wrecks and remnants of

The Yzeddies
of Persia and
their ancestors
compared.

“a nobler and better past.” Such shadows now flit where the ancient light of civilization once shone ; and they warn us that, on all the spots where the wisdom of the present age beams brightest, the deepest darkness of the future may fall.

If we could bring together from their distant abodes these people of English descent, and place them and their progenitor before us, after their separation for two thousand years, what resemblance would they bear to him, or to one another ? A descendant of the citizen of London, who had lived in Australia from his birth to mature manhood, descended from him through others who formed the links of the chain of descent for this lapse of ages, and all of whom had lived and died there, while such revolutions as I have mentioned rolled in successive cycles over it, might not be altogether a savage black and woolly-headed Bushman ; but it is almost certain that he would be very little like his original ancestor, the light-haired, fair-complexioned, and blue-eyed citizen of London. Another of his descendants, brought from the shore of Hudson’s Bay, born on that spot, after his forefathers had lived and died there for twenty centuries, might exhibit the hue of the Anglo-Saxon ; but he would be clad in fur and snow-shoes, and his diet would be the fattest flesh he could masticate. He would walk upon the floor of a parlor as if he were travelling upon slippery ice ; and his gait, manners, and appearance, would differ but little from those of an Esquiman. He would hardly be recog-

nized as the descendant of his English progenitor, or a blood-relation of his kindred from Guiana or Australia. The Anglo-Guianian might not be a *black man*, as I think his Australian cousin would be, but I am sure that he would not be very *white*. He would not feed upon blubber and whale-oil, nor dress in thick wool and fur. A microscopical inspection of his skin would show that its pores would be much larger than those of the epidermis of his distant kinsman from the land of the Esquimaux, made so by Nature to facilitate the perspiration and evaporation necessary to cool the body of an inhabitant of the torrid zone. He would probably be clad in some light fabric for decency and ornament, or he might appear divested of all the annoying adornments of civilized dress, and stand with his head proudly arrayed with a crest of red and green feathers, and his manly form covered with a convenient coat of coconut oil striped with vermilion and yellow ochre. I cannot conjecture what varieties of the human race would be produced, in two thousand years, by these unmixed but widely-dispersed *Anglo-Saxons*. I am confident that they all would be found to have departed very far from their original type, and that they would probably exhibit specimens similar to all the three races of Cuvier. Not one of them, out of Europe, would, I think, be found to have retained the Caucasian type, or to have reverted to that of their English ancestor. To produce the *true Caucasian*, it would be necessary to mix them all together

again ; for this race is certainly a mixture of all the others. . This is proved by the facts which I have already stated. The finest specimens of this race are found in the valleys of the Caucasus and among the Circassians and Georgians, who are an admixture of peoples descended from all the great Oriental nations who have figured in history ; also among the mountains and vales where the confines of Afghanistan, Bokhara, Mongolia, and the Punjab are contiguous, and where ancient Scythia, Assyria, and India, met, and their numerous races were mingled ; and the same evidence is afforded more conclusively where the Caucasian type predominates in Western Europe, whose civilized nations are the offspring of those who governed Asia and Africa in the earliest periods of history, and where we find the descendants of all the sons of Noah dwelling together, and their common blood inseparably blended. It cannot be reasonably doubted that what is termed *the Caucasian race* is a mixture of many, if not of all the others, into whatever numbers ethnologists may have classed them.

To the objection that *differences in grades of civilization among these races prove a diversity of origin*, a sufficient answer is afforded by the singular history of the Pitcairn-Islanders, now the inhabitants of Norfolk Island. They are the descendants of the mutineers of the ship *Bounty*. Their condition, and the remarkable voyage of Captain Bligh, with its consequences, pre-

How the Caucasian type is produced.

The history of Pitcairn's Island.

sent an array of striking and well-attested facts which, to the mind of an ethnologist, furnish a satisfactory refutation of not only this last objection, but of all the arguments hitherto adduced to disprove the unity of the whole human race.

Captain Bligh was sent by the British Government, in the ship-of-war *Bounty*, in 1787, to transplant the *bread-fruit* and other esculents, Bligh's voyage. indigenous to the tropical islands of the Pacific, to Jamaica, and other islands of the West Indies belonging to Great Britain. He remained more than a year in Otaheite, completed his cargo of seeds and plants, and set sail for Jamaica. But soon after hoisting anchor, and while in sight of the island, a majority of the crew, headed by Mutiny of the Bounty. Lieutenant Christian, mutinied, and took possession of the ship. They put Captain Bligh and twenty men, who were faithful to him, in an open boat only twenty-five feet long. Only five days' rations of wine, water, bread, and pork, were thrown into it with them. They had a compass, but no weapons, mast, or sail; and the gunwales rose only a few inches above the surface of the water. In this frail vessel they were turned adrift to perish upon the ocean. The mutineers doubtless thought that they would be sunk by the first storm that might arise, or be massacred by the first savages they might meet. These desperate men were incited to commit this crime by an aversion to leave the sybarite life they had led for many months with the amiable and

profligate women of Otaheite, among whom they had formed connections, and an unwillingness to resume the hardships of seamen under the strict discipline of Captain Bligh. This accomplished officer was a hero who proved himself able to encounter successfully the dangers of his situation, and he triumphed over them by his skill and courage, and lived to be promoted to the rank of admiral, under Lord Nelson, for his services at the battle of Copenhagen. With a pair of apothecary's scales, he measured the scant provisions of *five days*, to make them last for *fifty*, in which time he hoped to reach the Philippine Islands, or Java, nearly 4,000 miles distant. Favored by the monsoon, which blew steadily from the east toward those islands, by stormless showers, by alternate rowing, baling, and resting the crew, by his persevering watchfulness, and their implicit obedience to his judicious orders, he accomplished in that time this almost miraculous voyage, with the loss of only one man, who was killed by the savages of an unknown island lying in his course, with whom he attempted to hold intercourse for supplies.

Miraculous navigation of the Pacific.

Nothing was known of the fate of Christian and his followers during the lifetime of Byron, who founded his poem, "The Island," on the portion of the incidents mentioned; and in the notes to which he made large extracts from the journal of the admiral. A part of the mutineers returned to Otaheite, where they were all killed by

Byron's poem "The Island."

the natives for many outrages committed upon them, except a few, who were arrested by the British Government, and carried to Eng-
Fate of the mutineers.
land and hanged. But Christian, with eight of the crew, and twelve Otaheite men, and twenty young women, sailed away to Pitcairn's uninhabited island. They removed the stores from the ship, and then scuttled and sunk it, to prevent discovery, and fixed their abodes in the interior of the island, out of sight of the sea, where their history was hidden from the rest of the world, until Captain Folger discovered their retreat in 1808, and Captains Staines and Pippon, in 1814, and Captain Beechy, in 1825, visited the island, and published the facts I am relating, and which were given to them by old Adams, who was then the only mutineer living; and who was the patriarch and absolute sovereign of this strange colony. Soon after Christian and his followers had established themselves, the wife of Williams, the only carpenter, died; and he refused to work unless one of the wives of the men of Otaheite should be taken from her husband and given to him. Their necessities induced them to comply with his unjust demand; and the enraged savage, in revenge, slew him. Thus the feud between the white men and Otaheiteans commenced, and ended in the mutual destruction of the whole number, except Adams and McCoy. A species of yam grew indigenously, and McCoy, whose love of liquor made him inventive, contrived to make a rude mill for expressing the juice, and,

aided by an old boiler, he distilled from it an intoxicating beverage, copious draughts of which soon killed him. Adams then was left the only man upon the island, with twenty heathen women, and all the young children. This extraordinary man had taken no part in the mutiny; he had been educated piously by worthy parents, and, as subsequent events proved, he was admirably qualified to be the governor and guide of the infant community so singularly committed to his care. There were no books in his possession, except a Bible and prayer-book, which had belonged to Midshipman Henry; but there was an abundance of paper, ink, and pens, among the ship's stores. He set to work patiently, and wrote a sufficient number of spelling-books for the children, which were ready by the time they were old enough to use them. He also made many copies of parts of the Bible and prayer-book, and wrote a code of simple but very wise laws for the government of the island. Filled with remorse in view of his past life, and deeply impressed with the awful responsibility imposed upon him providentially, as the sole guardian of a multitude of ignorant and helpless but immortal beings, isolated from all the rest of the human race, he entered upon his task, with all the devotion of a saintly prophet, to civilize, Christianize, and train them to be useful members of the great family of God. For more than twenty-five years he had heroically and successfully performed his patriarchal work, before he was visited by Captain Beechy, of the Brit-

A true patriarch.

ish Navy. This officer testified that he found the descendants of the mutineers and their savage associates the most inoffensive, industrious, pious, amiable, and, in every respect, the most exemplary community he had ever seen in all his extensive travels over the earth. No crime had ever been perpetrated among them. Since that time they have multiplied so greatly that, the little island of Pitcairn being too small to subsist them, the British Government has removed them to Norfolk Island, which is much larger and more fertile. All the accounts given of them in the last thirty years prove that they yet retain their high moral character in their new abode. All who have visited them concur in attesting that, in honesty, truth, chastity, industry, benevolence, reverence, and all the virtues which combine to form true religion, they are the ^{A modern Eden.} most exemplary specimens of the human race ever discovered and described in any land or age since the expulsion of man from the primeval Eden. The almost perfect grade of civilization they presented was not attributable to their anthropological type, or to their hereditary blood, but to their education in the faith and precepts of the Bible, as explained in the prayer-book of the Church of England, imparted to their minds, and impressed upon their hearts and conduct by a wise, judicious, and holy teacher and ruler. The education he gave them embodied this simple faith and obedience ; while their isolated nursery was surrounded by the great ocean which ex-

cluded from them the heresies, superstitions, and vices, which poison and wither the inhabitants of other lands.

Adams had carefully concealed from them a knowledge of their immediate ancestry and of his own history, for two reasons: He did not wish to be known as one of the mutineers of the *Bounty*, and, as such, liable to capital punishment; and he feared that, if the children should learn their disgraceful descent, as the illegitimate offspring of profligate criminals and degraded pagans, such information might affect their character injuriously, and prevent, in some way, the influence of the Christian education he determined to give them, and which he did give them. This good old patriarch, in consideration of his advanced age and pious deeds, was pardoned by the British sovereign. He died among his children in 1829, and was succeeded, as a teacher, by the Rev. Mr. Nobbes, a worthy English clergyman, and the first minister of the Gospel these islanders ever had, and who administered to them the rites of Christianity, for which their patriarchal governor had prepared them. He became so much interested in them, that he abandoned the advantages of England, and severed the ties which bound him to his country and kindred, to live among them and to share their destiny. He had long continued to direct the affairs of these innocent and saintly people, when I read the last information I have about them.

The history and ethnology of this singular race

present these facts and damaging objections, in opposition to the arguments arrayed against the biblical doctrine of the unity of the human race.

Captain Bligh, in an open boat, inferior to those mentioned by Homer and Virgil, or to any sculptured upon the monuments of Egypt and Assyria, and with only the tenth part of the provisions necessary for such an enterprise, made a successful voyage in fifty days of nearly four thousand miles across the Pacific Ocean, from the Society Islands to Timour, which proves that the Malays, the Arabians, or any of the ancient commercial nations, could have accomplished a similar feat of nautical skill in past ages.

When visited by Captain Beechy, in 1825, the Pitcairn-Islanders were not only a civilized, but an enlightened, refined, and Christian race. They wrote and spoke the English language as well as the educated citizens of London. They were excellent sailors, ingenious mechanics, and industrious agriculturists. If Adams had died when all his male associates perished, and while their descendants were little children, they would all have spoken only the language of Otaheite, and have grown and multiplied into a nation of savages whose grade of civilization would have been that of their Polynesian mothers. In that case they would have presented a problem to ethnologists as puzzling as that exhibited by the Tuscarora and Mandan Indians. Some of them, when discovered by Captain Folger, were full-blooded

Polynesians, the children of the twelve pairs of native Otaheitans. The others were the children of nine cinnamon-colored pagan women, and nine English, Scotch, and Irish sailors, of different complexions. In three generations the whole community would have been found mixed by intermarriages, as they are now, and presenting a singular type of mankind, unlike their barbarous or civilized progenitors, and somewhat different from any other known race of people. If Adams and all their mothers had died before the visit of Captain Folger, not one of the inhabitants of the island could have given him any information about their origin ; because this, for the reasons I have mentioned, had been carefully concealed from them. Connecting their language with certain peculiarities in their dress, and the structures of their boats, houses, and implements, with the mutiny of the ship *Bounty*, and the escape of Christian and his followers, and associating these facts with their variously-colored eyes and hair, an ethnologist might rationally conclude that some of them are of European, or even of British extraction, by the same process of reasoning which enables us to decide that the Mandan Indians are the descendants of Madoc and his associates. If Adams had died when the first natives of Pitcairn's Island were infants, the grade of the civilization of this race would certainly have been that of the unlettered and dissolute aborigines of the Friendly Isles before their Christianization. His preservation for twenty-five years has made their

condition that of an enlightened and Christian people. This proves conclusively that no variances of degrees of civilization indicate any diversity of race; for, whether Captain Beechy had found them pious Christians or pagan cannibals, they would have been his blood-relations, and of the same origin with our own. Their history suggests the absurdity of supposing that all the barriers which separate the inhabitable regions of the earth have not been surmounted by the same original race which descended from the ark on Ararat, and diverged from Shinar to people its continents and isles. It also reminds us how easy it is for them in their wanderings to lose the manners, customs, language, and all knowledge of their own names and races, and of the lands of their ancestors.* Grades of civilization may be affected slightly by a variety of causes. Hereditary influences and the physical conditions of habitats aid or retard the progress of nations; but education is to the man what cultivation is to the plant. Where the mental soil is rich, the production of education will be prolific, if properly applied. But even the acid and dwarfish wild-crab may be developed by culture into the luscious golden pippin, and the illegitimate offspring of a blasphemous and murderous father and a pagan and cannibal mother may be educated into a refined Christian gentleman. To whatever race mankind belong, they rapidly rise or sink to the level of their associates, as a general rule. There are excep-

* See Note I.

tions among nations and individuals. The Indian maiden, Pocahontas, taken from her savage tribe and educated and Christianized, became the ancestor of the Blands and Randolphs of Virginia. But the condition of a scion of the purest Caucasian stock, reared without any of the advantages of Christian civilization, may be represented correctly by the following illustration :

In the early part of this century a man, afterward known as "Wild Bill," was captured in a cypress-swamp in the Mississippi bottom, near the city of Natchez. Some negroes, while working a field adjoining this swamp, had been often frightened by seeing him. When pursued by their dogs, he usually ran into a lake, and turned upon those which swam after him and drowned them. For several years the neighboring planters heard marvellous stories from the negroes about a huge, hairy gorilla, or goblin, infesting this swamp. At length the panic, spread by a party of them frightened out of the field near it, and who could not be induced, by any threats or persuasions, to return to their work in it, caused some gentlemen in the vicinity to assemble with their packs of hounds and give the haunted locality a thorough search. The wild man was soon found by the dogs, pursued, and *treed* in a large cypress. This was cut down, and, after a severe struggle, he was secured and brought to Natchez. When first caught, he uttered only savage grunts and shrieks ; but, in the course of

time, he learned to speak, and gave an account of all that he recollected of his past life. He remembered indistinctly that he had seen a man kill a woman, by whose dead body he remained until he was frightened away by the birds and beasts of prey which came to devour it. It was supposed that, when he was about three years old, his father had landed with his mother from a flat-boat, murdered her upon the spot, and left him to perish. He had never been a mile from the place, and was very timid. His principal food had always been tadpoles and frogs, which abounded in the cypress-pond. When the neighboring woods were cleared for a field, curiosity prompted him to gaze at the negroes working in it. When chased by the dogs, he plunged into the water, and, in self-defence, drowned those which swam after him, or escaped from them by climbing the trees, which he ascended with the nimbleness of a monkey. At the time of his capture he seemed to be about twenty-five years old. He was very strong, active, and perfectly formed. He was entirely naked, and bronzed by the sun, and all the parts of his body most exposed to its rays were covered with a coat of yellow-brown hair, the color of that of his head and beard. His eyes were blue, and the shaded portions of his skin were white. His nails were very long, firm, and serviceable. When shaved and well dressed, he was very handsome. This extraordinary character, in the then new and dissipated city of Natchez, soon became very fond of whiskey; and, having no Adams or Pitcairn to guide

him, imbibed bad habits, and went off with a party of traders to the Western wilds nearly fifty years ago, and nothing more has been heard of him. If Alexander the Great had been left in childhood, like "Wild Bill," to be self-reared in solitude among wild beasts, his "gentle blood" would not have saved him from a similar fate. He would have grown to manhood a speechless and hairy savage, only one degree above *the chimpanzee* in the scale of zoology. The influence of hereditary blood may render some children more susceptible of mental improvement than others; but the isolated, untutored, *natural man* is an animal only superior in reason, and inferior in instinct, and very little elevated, in his temporal condition, above the higher orders of *mammalia*, whether his blood is that of the white, black, or yellow race.

About twenty-five years ago, a white man was wounded and captured by some Texan rangers, in a battle with the Comanches, above the city of Austin. These Indians had murdered his parents on the frontier, when he was only two years old. They spared his life, but kept him captive, and reared him with the Comanche children. He had no recollection of his parents or birthplace, and had forgotten his English name and language. But the bloody memorial of his parents' massacre, and of his capture, had been preserved in the neighborhood of his nativity; and he was recognized and identified by the old inhabitants of it. Before his

White Indian of
Texas.

capture he had become a formidable Indian warrior, and a terror to the frontier settlers. After he had acquired a sufficient knowledge of the English language to converse in it, he was found to be quite intelligent. He had learned all the arts and imbibed the principles of the Indians. He said that, while he was robbing and murdering the white people, he thought he was doing his duty. His color was bronzed by the sun, and his expression of countenance that of an *Indian brave*, and his grade of civilization precisely that of the Comanches. When clad in aboriginal costume, it was difficult to distinguish him from one; but, when dressed like a gentleman, he looked like a fine specimen of the white race. The ethnological condition of the famous "Black Prince" of Wales would have been the same with his, if he had been educated from his infancy by the wild Bedouins of the Texan prairies.

As a general rule, to which there are some exceptions, grades of civilization and *national character* depend much upon the habitats The influence of habitats on national character. occupied by the different races. Let us take, for example, a single variety of the North-American Indians, who are, as I have supposed, of Mongolian or Scythian descent, and examine their condition as they were divided, and settled in different localities. In the hunter state, occupying Kentucky, as it was when Daniel Boone first saw it, with its grand forests and beautiful prairies, and rude climate in winter, they were forced to lead a life of hard exercise for subsistence

Their fierce encounters with bears, panthers, and wolves, and long and bloody conflicts with tribes of their own race, made them athletic, cautious, bold, and skilful warriors—wild, free, and untamable as the birds and beasts of prey which shared the wilderness with them. But tribes of the same race settled in Cuba long before the hands of the white men had withered the hues of its primeval beauty. Amid ever-green forests, laden with perennial fruit, producing upon mountains, in valleys, and upon the ocean's shores, inexhaustible stores of food without labor; and in a luxurious and winterless clime, which made clothing unnecessary as a protection against cold, with no enemies to fight and no labor to perform, these relations of the Kentucky Algonquins, and the descendants of the warlike Scythians, were transformed into the effeminate and gentle Caribs. Multitudes of the same martial and migratory race were crowded together in the fertile valley of Mexico. There they were surrounded by barren and snow-covered mountains, and by warlike enemies. Upon this rich soil, without game to hunt, they were forced to work, and, in the course of a few centuries, became the industrious and obedient slaves of their superiors in mental and physical strength—the Aztec subjects of Montezuma, the emperor, and Cortez, the “Marquis of the Valley.” The same observations will apply to the nomadic Mongols, and the same people settled in the densely populated parts of China; to the wandering Arabs, and to those living in fixed habitations; and

to many other varieties of the human family. They prove that habitats and circumstances, more than hereditary influences, mould the characters and the grades of civilization of the various nations of the earth. Yet these hereditary influences affect individuals and nations beneficially or injuriously. Mental and physical traits are inherited and transmitted. Certain personal peculiarities are known to mark the same families. A talent for music, poetry, oratory, drawing and painting, mathematics, or mechanical contrivance, is the natural susceptibility of an individual for the acquisition of a knowledge of these things, and the proper organization of his mental and physical faculties for their practice; and it is sometimes inherited by successive generations of the same family. A talent for either of the arts or sciences may be perpetuated from parents to their children, from age to age, as long as it is guarded by marriage, and cultivated by education and exercise; but if it is neglected it remains dormant, and it will soon be extinct. The magnificent music of the Jewish Temple owed its perfection to the fact that the sons and daughters of Jeduthan, Heman, and Asaph, were its musicians and choristers in successive generations, and hereditary talent combined with scientific instruction and daily practice to make the music of the sacred fane the most sublime and beautiful to which this world has ever listened. The manufactures of England

Mental and physical traits hereditary.

The definition of the word talent.

Inherited talents.

maintain their high reputation because the same sort of hereditary influence is perpetuated by the descendants of the manufacturers practising the same trades which they pursued. Thus the Rogerses of Sheffield are "cutlers to her Majesty" the Queen of England, as their fathers were to her royal predecessors.

The Rogerses of Sheffield.

An adaptability to the vile condition of slavery, or an unconquerable love of liberty, may be traced to this hereditary influence. The coolies of China and India, and the blacks of Ashantee and Dahomey, are suited to it. So are the serfs of Russia, some of whom were opposed to their own emancipation. The Aztec peons of Mexico make obedient slaves. The reason is, their ancestors, for many generations, were oppressed bondsmen. But tribes of these races, in several countries, are not adapted to this condition, because their ancestors were freemen. The relations of the Russian serfs, the Don Cossacks and Circassians, prefer death and extermination to slavery. While the Chinese and the Quichuas make the most submissive menials, it is as difficult to capture, and tame for our use, the zebras and hyenas, as to civilize and enslave the wandering Arabs and warlike Comanches. A thorough enslaving process requires great changes in government, radical revolutions in morals, and the slow work of time continued through many generations. It will take the toil of subtle tyrants a cycle of centuries to fetter the descendants of the white people of this

The cause of an adaptability to slavery.

continent, and especially those whose ancestors achieved the independence of the United States, and enjoyed the blessings of perfect liberty for fifty years. The pure air of freedom invigorated their blood and ennobled their race. Before the spirit of liberty, which animated them, and which glows in the souls of their children, shall be totally extinguished, many Timoleons and Virginii will strike down the despots and oligarchs who shall attempt to impose their chains. But whether they shall be oppressed and slain, or live and die free, as our fathers lived and died before us—if a thorough enslavement of our republic shall ever be effected, the deepest degradation it may suffer will not prove that the vilest slave will be of a different blood and origin from his proud oppressor. The true philosopher can account for the contrasts which individuals and nations present in character and condition, without attributing them to their descent from differently-created parents. Righteousness will exalt a nation, and heroical virtue will preserve it, although its territory may be small and defenceless as ancient Sparta, whose only walls were the valiant hearts and the strong arms of her temperate sons. But vice will hurl an empire in ruins, in spite of bulwarks impregnable as the brazen gates and stupendous walls of great Babylon. The attributes of humanity are exhibited in very different degrees by fathers and their sons. Some of the descendants of the sages and heroes who founded the Republic of the United

The difficulty of
enslaving the
United States.

States of America are debased by ignorance and bestialized by vice, and in wisdom and virtue as inferior to their illustrious ancestors as are the crouching slaves and treacherous bandits of modern Greece to the famous lights of the Areopagus, and the Academy of Athens, and the renowned victors of Marathon and Salamis. Yet in *blood*, and in all that constitutes *race*, these degenerate sons are the same with their noble sires, who made their memorable land—

“From ocean’s strand to mountain-cave,
Freedom’s home or glory’s grave.”

But their modern history teaches this important lesson : No religion will preserve a race from degradation and ruin, however pure may be its faith, if the morals of its orthodox professors are corrupt. After the conversion of Greece to Christianity, all the traces of paganism were obliterated from its faith. No people were ever more thoroughly Christian in their creed. Yet they violated the great commandments of God in all their conduct. They became enervated, effeminate, dissolute, and cowardly, and were easily conquered by the hardy and temperate pagan hordes of barbarians, who, under different names, and in successive swarms, descended upon their classic land from the ancient Scythia ; and at length Mohammedan Toorkomans, after absorbing all their Asiatic possessions, crossed the Hellespont, and annihilated the last remnants of their empire. But in honesty, sobriety, and all the

The lesson
taught by Gre-
cian history.

Christian virtues, their conquerors were far better than themselves. Human life is ephemeral. The most stable governments of nations are transitory, and all things visible are temporal and doomed to pass away. But the most durable governments of earth will ever be those whose people not only profess and cherish the pure faith of the Gospel of the Incarnate God, but who also practise the most perfect obedience to its holy precepts. This righteousness alone will exalt a race to the highest grade of civilization, and preserve its power and national glory from

The religion
which suits a
nation.

“The tooth of Time, and razure of oblivion.”

In the examination of the question, *How the world was peopled?* I have not discussed the subject of chronology, and have only introduced historical dates when necessary. In doing this, I have used the authorities which I think are the most reliable, and assented to the supposed correctness of the chronology of Usher. His calculations of the times, when certain events mentioned in the Bible occurred, may be correct, or they may be erroneous; and the date of man's creation may possibly have been far more remote from the Christian era than 4,004 years. I have, however, seen nothing which has made me doubt his general accuracy, and to incline me to prefer the estimates of Bunsen and others, which greatly lengthen “the human period.” However long mankind have been upon the earth, the Scriptural doc-

trine of their descent from Adam and Eve is not affected by the calculations of chronologists. The view of the unity of the human race which I have presented is supported by the opinions of Sir Charles Lyell and Baron Humboldt. Sir Charles Lyell says: "The theory that all the races of men have come from *one common stock* receives support from every investigation which forces us to expand our ideas of the duration of past time, or which multiplies the number of years which have passed away since his origin."

Sir Charles Lyell
on the unity of
the race.

Among the many philosophers of ancient and modern times, who have examined the important subject of the origin of the races of mankind, none have given it so thorough an investigation, and certainly none were more competent to perform the task, than the illustrious brothers Alexander and William von Humboldt. For this reason I will conclude my humble attempt to elucidate it by quoting their joint decision of it as expressed in the "Cosmos :"

The opinion of
the brothers
Humboldt.

"The different races of mankind are *forms of one sole species*, by the union of two of whose members descendants are propagated. They are not *different species of a genus*, since in that case their hybrid descendants would be unfruitful." To this argument no valid answer has yet been given; and, from this decision of the question, I do not think that any appeal will ever be sustained. In regard to the last objection to it, which I have considered, derived from

the contrasts presented by the grades of civilization, the Baron Alexander von Humboldt says: "There are nations more susceptible of cultivation, more highly civilized, and more ennobled by education, than others;" but he argues that this is not to be attributed to an original creation of one race more noble than others, since they all have the same origin. In regard to the influence which the doctrine of the unity of the human race should exert upon each individual as a member of one great family, all the children of the same parents created by one Divine Father, he adds this benevolent sentiment: "Deeply rooted in the innermost nature of man, and enjoined upon him by the highest tendencies, the recognition of *this bond of humanity* becomes one of the noblest leading principles in the history of mankind." This incentive to philanthropy, which animates all men who recognize the whole human race as their kindred, is the same principle of action presented in these divine passages of the Revelation of God to mankind—"God that made the world and all things therein, . . . hath made *of one blood* all nations of men."* This sublime truth teaches us that "we, being many, are *one body* in Christ, and *every one members one of another*;" and, therefore, we should "be kindly affectioned one to another with *brotherly love*,"† and be ready "to do good, and to communicate"‡ the blessings we enjoy to every suffering son of Adam,

* Acts xvii. 24, 26.

† Romans xii. 5, 10.

‡ Hebrews xiii. 16.

whether he has been bleached by the polar snow or blackened by the tropical sun.

The universal acceptance of the doctrine of *the unity* of the human race, will prepare mankind for their *future union* in a manner and under a government whose form and character we cannot now clearly comprehend. The divine prayer of the Incarnate Creator for the chosen and the righteous, who shall shine among the races of coming ages, has been offered, "that they may be *one*." * That prayer is a *prophecy* which will surely be fulfilled, and "they all" will "*be one*." The purest and most ardent desires of human philanthropy, and the sublimest predictions of inspired prophecy, all point to the advent of that Elysian era. But, before its coming, the wars and revolutions which are now agitating the earth and sifting the nations will cease. The inferior and unimprovable races of men will all have passed away; individuals among nations who constitute their discordant elements and disturb their peace, or who act as tares among wheat, and check their growth and prevent their progress, will have been winnowed and swept from existence. "The times of the Gentiles shall be fulfilled," † and Jerusalem shall be "trodden down" no more. The wanderings of the Jews shall cease; and the singular testimony given, through the long lapse of centuries, to the truth of the Scriptural prophecies, by these divinely-protected witnesses, will be closed. "The

* John xvii. 21, 22.

† Luke xxi. 24.

lion and the lamb shall lie down together," and the nations will learn the arts of war no more. The last thunders of mortal strife will long have died upon the wailing wind ; and the ploughshare and pruning-hook will have buried and hidden forever, beneath blushing vineyards and waving harvests, all traces of the fields of blood. The wings of the joyous gales will waft the incense of the temples of the Prince of Peace, rising from every continent and the multitudes of isles, peopled by the descendants of Adam, and redeemed and united by his Almighty power—the *one family* of the only "everlasting Father," obedient to His will, and crowned with His glory. AMEN.

NOTE ON LECTURE VI.

Pitcairn's Island was discovered by Major Pitcairn, of the Royal Marines of Great Britain, while serving on board H. B. M.'s ship-of-war *Aurora*, commanded by Captain Carteret, July 2, 1767. It is situated in the South-Pacific Ocean, latitude $25^{\circ} 4'$ south, and longitude $130^{\circ} 8'$ west. It is nearly surrounded by rocky shores, without any river or harbor, and with no landing except Bounty Bay, noted as the spot where the mutineers, with the ship of that name, landed after they left Otaheite in 1789. It is only about seven miles in circumference, of volcanic formation ; but, like other tropical islands formed by marine volcanoes, it is very fertile, and produces the cocoa-nut, plantain, banana, banyan, orange, and other tropical fruits, as well as the sweet-potato, pumpkin, water-melon, sugar-cane, maize, and ginger. It had no indigenous quadrupeds ; but swine and goats have been introduced, and also poultry. Its population in 1868 is given, in Breton's "Diction-

ary of Geography," as amounting to about one hundred and ninety-eight souls.

The *Bounty* sailed from Spithead December 23, 1787, and reached Matavai Bay, Otaheite, October 26, 1788. It sailed again on the home voyage April 3, 1789. The mutiny, headed by Fletcher Christian, occurred April 27, 1789. The seaman who is mentioned as having been killed by the savage inhabitants of an unknown island was John Norton; and the island is To-fooa, thirty-four miles from the scene of the mutiny.

The island of Pitcairn, after having been settled by the mutineers and their Otaheitan companions in 1789, was visited first by Captain Folger, an American, in command of the Boston ship *Topaz*, in 1808. During the war between the United States and England, in 1812-'15, two British ships-of-war, the *Briton* and the *Tagus*, commanded by Captains Staines and Pippon, while cruising in the Pacific in quest of the United States ship-of-war *Essex*, Captain Porter, landed upon the island in 1814, and revealed to the British Government the retreat of Adams, and the descendants of his companions. Captain Henderson, of the ship *Calcutta*, visited them in 1819; and Captain Beechy, commanding the *Blossom*, while on a voyage of discovery, stopped at the island in December, 1825.

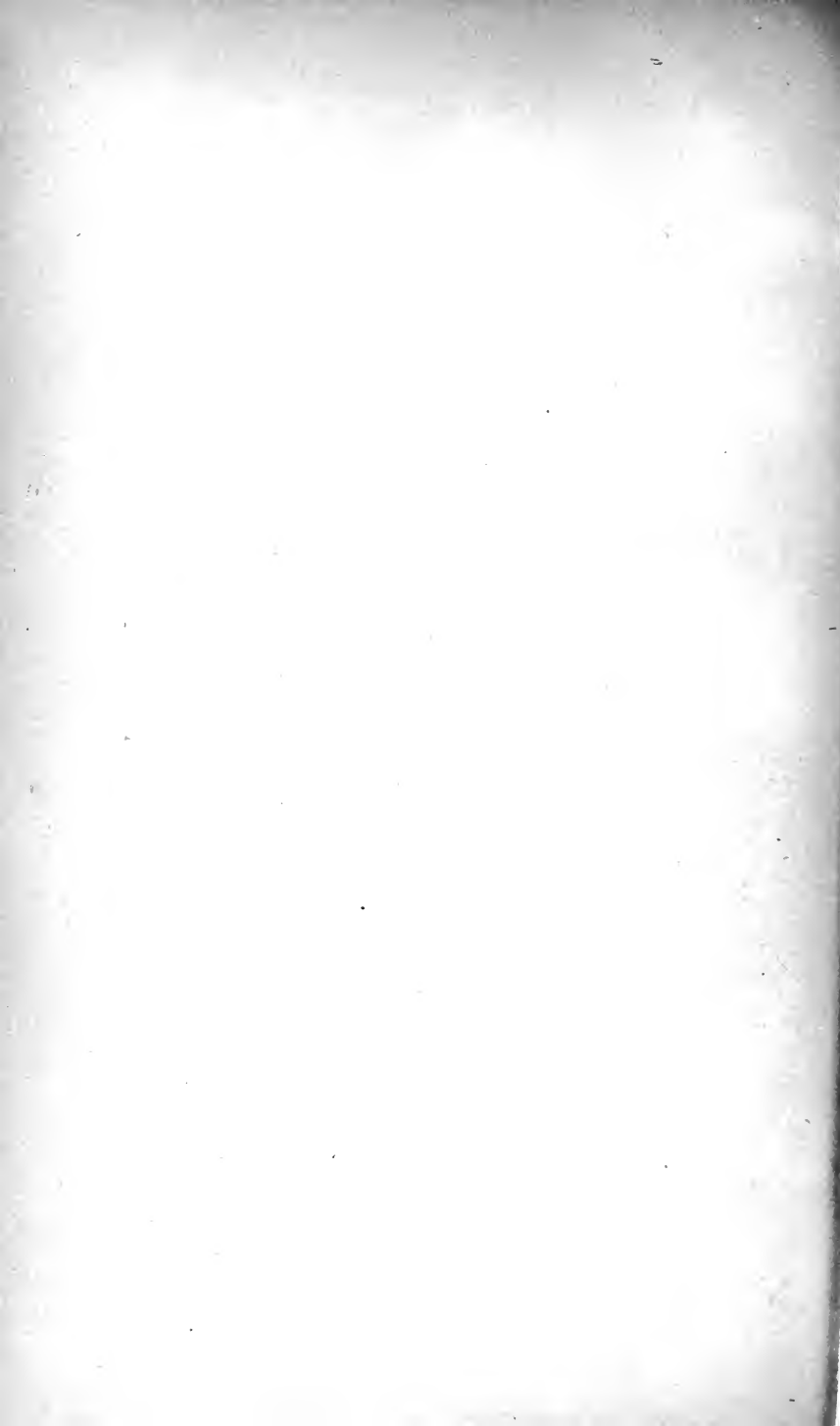
Old Adams closed his useful life upon the island, amid the lamentations of the community he had reared and saved, March 5, 1829. My authorities for the facts in regard to the mutiny of the *Bounty*, and the Pitcairn-Islanders, are Bligh's "Journal," and an account of Pitcairn's Island, published by the Harpers, of New York, and making a volume of their cheap "Family Library," and also two very recent works, "Pitcairn," by the Rev. T. B. Murray, and the interesting history of the islanders by Lady Belcher.

HOW AMERICA WAS PEOPLED BEFORE ITS DISCOVERY BY COLUMBUS.

A LECTURE

ON THE ABORIGINES AND ABORIGINAL REMAINS OF AMERICA.

Prepared by an invitation of the HISTORICAL SOCIETY OF NEW YORK, and delivered at its stated meeting, October 8, 1871. The Lecture was also delivered before the MARYLAND HISTORICAL SOCIETY, in Baltimore, October 14, and before the HISTORICAL SOCIETY OF LONG ISLAND, December 12, 1871.



INTRODUCTION.

IN considering the question, "How was America peopled before its discovery by Columbus?" my task, I fear, will be more useful than pleasing. The pleasure you will derive will be something like that which is enjoyed by an excursion through the ornamented walks of a cemetery. We may admire the blooming shrubbery and evergreen foliage—types of the resurrection, and emblems of immortality, which cheer our hopes—and the sculptured granite and marble which record the deeds and enshrine the mortal remains of our country's benefactors and our cherished friends; and we are saddened by the reflection that all this is the decoration of death. We feel that we are walking upon the dust of buried generations, and we are conscious that we must soon sleep in silence with them. The researches of the historian are nothing more than explorations among the tombs of nations which ornament the world's vast necropolis. Into this city of the dead all the kingdoms and empires which flourished in past ages have descended, and those which now exist

are following them, and will soon be enveloped in the sable shroud which covers them.

While I unfold to you the sources whence this continent derived its ancient inhabitants, you will have the veil lifted from the faces of nations dead and buried long ago, but all of them the predecessors, and often the progenitors, of those who occupy their places.

There are individuals who die without transmitting children, while others leave a multiplying posterity, to occupy their places among the living, from age to age. So there are races which perish, and pass into oblivion, while others survive the various governments under which their ancestors lived, and grow into new nations. There are races now existing, but which are continually declining, and who seem to be doomed to utter extinction. Among these waning tribes are the North-American Indians and the negroes. In the year 1800 it was estimated that there were 14,000,000 of red men living within the present boundaries of the United States. That estimate was probably much too large. In 1840 a more accurate enumeration fixed their numbers at 2,500,000. In 1860, by war, disease, vice, and famine, they had been reduced to less than 400,000. Now their tribes are dwindled to mere remnants, and well-grounded fears oppress true philanthropists that in the next century the whole of this "people, scattered and peeled, a people terrible from their beginning hitherto, whose lands the rivers" and floods of

invaders from all climes "have spoiled," will sleep with the builders of the *casas grandes*,* and the mounds of the Mississippi Valley. The negroes have disappeared from all Southeastern Asia, and from most of the islands of the Pacific Ocean; while even in Africa itself they have been exterminated in areas of many thousands of square miles; and vast empires, once peopled by these primeval blacks, are now occupied by the yellow race of Cuvier and various mingled nations. Philanthropy is almost paralyzed by these facts, and Christian charity is hindered, by the discouraging exhibition of what seems to be their inevitable doom, from all efforts to Christianize them.

But true Christianity forbids our despair, and her sublime prophecy declares that from these declining and apparently dying races, scattered and pillaged, whose lands have been "meted out," surveyed, and "trodden down" by various conquerors, "a present shall be brought to the Lord of hosts." As they are perishing and passing away utterly from the earth *because they have forgotten God*, the Incarnate Jehovah and the world's Saviour commands us to go and teach them His nature, His name, and His law again, by giving them the Gospel of Christ. This will arrest their downward steps, stop their decline, vivify them with national life, and turn their course, and gather them again into the great family of nations who are the children of the Prince of Peace,

* *Casas grandes*, "great houses," the name the inhabitants of New Mexico give to the aboriginal ruins found in that territory.

and who are progressing onward and upward toward "the place of the name of the Lord of hosts, the Mount of Zion." You will be, I hope, more strongly stimulated to obey the great command given to His Church to teach them His Gospel, if I can convince you that these descendants of the ancient races of America are your *blood relations*, and descended with you from the same original parents.

THE ABORIGINES AND ABORIGINAL REMAINS OF AMERICA ;

OR, HOW AMERICA WAS PEOPLED BEFORE ITS DISCOVERY
BY COLUMBUS.

ONE of the first lessons in geography and history which was taught the children of our country, a half-century ago, was, that America was discovered by Christopher Columbus, the 13th of October, Anno Domini 1492. Correct text-books for their instruction *now* have to be so altered as to deprive the great Genoese of this honor. History cannot justly claim for him the merit of being the *first European* who visited these shores. He deserves the enviable praise due to the inauguration of what is termed "the age of discovery ;" but he, and the adventurous navigators who succeeded him, discovered nothing upon this continent which authorized historians, geographers, and poets, to call it "the New World." They found it ribbed with grand *old* mountains, terraced with vast *old* plains, and savannas ancient as the steppes of Central Asia, or robed with primeval forests, intersected with magnificent rivers ; and they

only discovered that the mountains, valleys, prairies, forests, river-banks, and ocean-shores of this venerable continent were all occupied by ancient races of savage and civilized men, who were hunting game or cultivating the earth among the ruins of the abodes of yet older races, of whose origin and end these aborigines had no certain knowledge. The contemporaries of Columbus, and the exploring voyagers who have succeeded him, to those of our day, have found every spot on the globe inhabited by the various races of men, except the Galapagos and Falkland Islands, the isles of Mauritius, Bourbon, St. Helena, Ascension, San Juan Fernandez, and a few other isolated spots too remote from all the other inhabitable parts of the earth, or too cold, barren, and inhospitable, to constitute desirable human abodes. Yet, on several of these uninhabited and wretched rocks, they found the evidences that even they had been visited, examined, and abandoned, by explorers who had preceded them, and who were probably as daring and skilful as themselves. Instead of finding the continent of America a *New World*, these modern Europeans discovered a land bearing older geological marks than any yet traced in Europe, Asia, and Africa. Here geologists have found the *Laurentian* formation, older than the Devonian and Silurian of Europe, and far beneath these ancient strata they discovered the grave of the *Eozoon Canadensis*, supposed to be the first living creature formed and placed by God upon our planet. Everywhere on

this great continent these Europeans found men whose history, like that of the ancient Greeks and Romans, descended down the vista of past ages into the region of myths and vague traditions, and these nations were living among the graves of yet older races of men whose names and whose annals were buried in oblivion.

A part of this essay will be devoted to the task of rescuing something of their history from the shadows of the past. I will endeavor to show that America was peopled by Europeans, Africans, and Asiatics, long before it was discovered by Columbus, and also that these people belonged to the same ancient races from whom we, the present inhabitants and citizens of the United States, derive our descent. It will not then be difficult to deduce the conclusion that the modern descendants of these ancient Americans are of the same blood and origin with ourselves, and, as such, that they are our relations, bound together with us by a common bond of humanity.

The first inhabitants of America were, I think, of Scythian descent. The descendants of Japheth, who occupied all Central Asia, and the great plains of Southeastern Europe, through the influence of climate and nomadic habits at a very early period, antedating the greatness of the empires of Egypt and Assyria, assumed that peculiar type which characterized the ancient Scythians, and which marks their modern descendants. In the catacombs of Egypt paintings of them, exe-

The first inhabitants of America.

cuted a thousand years before the Christian era, represent them as having yellow complexions, scant beards, straight black hair, black eyes, and all the anatomical traits of their descendants—the Mongols, Chinese, Japanese, and their offspring, mixed variously, as the many tribes of Tartars, the Malays, copper-colored Pacific Ocean Islanders, and the Indian tribes of North and South America, unmixed with Europeans and Africans. Cuvier very properly classes all these as one race—the *yellow*—while Prichard and other ethnologists divide them into several types. The most powerful of all the kings of Egypt, Rameses II., called by the Greeks Sesostris the Great, about 1470 years before the Christian era, marched his conquering army around the Levant, the Black and Caspian Seas, and penetrated the empire of the Scythians as far as the Tanais, or the country of the modern Don Cossacks. But they were nomads then, as the Mongols are now. They avoided him, with their movable camps, and the conqueror did but little damage to their flying hordes, with their families and flocks. Darius, the Persian, failed in his efforts to conquer them. Afterward Alexander the Great penetrated a portion of their vast empire, and defeated some of their tribes, and marched his army as far as the ancient Imaus, the present Hindoo-Koosh Mountains. For three thousand years this yellow race have lived as wandering clans, divided into separate small and great hordes. Portions of them have settled in towns and

cities, and congregated into populous kingdoms, as they have done in Siam, China, and Japan. Occasionally a multitude of their tribes, dwelling as cultivators of the earth, or migrating in hordes over the grassy steppes of Asia, have been united under the sway of such conquerors as Attila, Tamerlane, and Genghis Khan. Millions of them are now ruled by the Czar of Russia and the Emperor of China. In ancient and modern times nearly half of the whole human race have belonged to this Scythian family, and from it the continent of America derived its earliest inhabitants, while they have received many accessions from the same source in successive ages.

American Aborigines of Asiatic Descent.—Before calling attention to the ancient inhabitants of this continent, who came originally from Africa and Europe, I will notice briefly those who came from Eastern Asia. The traditions of many of the North-American savages point to the Northwest as the direction whence their ancestors migrated originally. But the Mandans and some others were exceptions, and believed their ancestors came from the East across the Atlantic. Others, like the Shawnees, are known to have lingered long in the South, and then migrated North; and, after occupying successively Georgia, Ohio, and the Indian Territory west of the Mississippi, were living in Texas in 1851. The ancestors of many of these wandering tribes were probably driven from their pastures and hunt-

American aborigines of Asiatic descent.

ing-grounds in Asia by such terrible conquerors as Genghis Khan, who usually exterminated all the clans who resisted their power. I infer this from the imperfect historical accounts we have of the Huns and other Tartars, and all the facts accessible to us in relation to their manners and customs, and the character of their civilization at different periods in past ages. Gibbon, in his splendid history of "The Decline and Fall of the Roman Empire," informs us that the hosts of warlike nomads from Western Asia, who overran the Roman Empire, were generally Tartar tribes with different names, flying from the invasions of great conquerors who were devastating the central regions of that vast continent, and whose revolutions were only made known to Europe by the swarms of barbarians poured upon her borders, and who were escaping from their armies. At one time 1,400,000 horsemen marched under the banner of Genghis; and it was the boast of some of these scourges of God that they so utterly devastated the face of the earth, that the grass would never grow again in the tracks made by the withering march of their squadrons. Their weaker enemies had to save themselves by a prompt and abject submission, or by a precipitate flight to regions far beyond their reach. To escape such dangers many of them at different times doubtless crossed the Aleutian Archipelago and Bhering's Straits, as the modern Asiatics in Kamtchatka yet do, to North America. Then, attracted by a climate continually improving in mildness, and a

country more fertile and abundant in wild fruit and game, the farther south they proceeded, their migrations naturally tended toward the southeast and south. They seem to have followed one another in different centuries; and those who first found their way to the Lower Mississippi, to Mexico, Central America, and the Pacific coast of South America, came in contact with other races from Southeastern Asia, Africa, and Europe, by whom their forms of civilization were greatly changed.

Chinese and Japanese Accounts of Ancient America.—Since the intercourse of our country with China has been improved by recent treaties, and our commerce established with the empire of Japan, mainly through the expedition of Commodore Perry, the ancient literature of both of those long-secluded countries has been opened to our researches.

Chinese and
Japanese ac-
counts of an-
cient America.

The Abbé Brasseur de Bourbourg is of the opinion that the ships of China visited America as early as the fifth century. Their name for it was *Fu-sang*; and M. Leon de Rosny has ascertained that the Japanese in their Encyclopædia give it the same name, and describe it as a country, situated across the Pacific to the east, 7,000 miles from their own. These descriptions are supposed to be at least 1,300 years old. The Indians about Nootka Sound, on the Pacific coast of British America, wear the Chinese head-dress, the *mambrino*, a helmet-shaped hat, and prove by their manners, customs, and appearance, that they

are of mixed Chinese origin, and also related to the Malays.

Malay Americans.—Pickering, the learned ethnologist of the United States Exploring Expedition, commanded by Lieutenant Wilkes, thinks that all the copper-colored aborigines of North and South America are of Mongolian descent, except the Esquimaux, who are the same race with the dwarfish northern Asiatics, and the Lapps and Finns of Europe, and the aboriginal Peruvians and Chilians, whom he supposes to be of Malayan extraction; and he has made that distribution of them on the ethnographic chart published with the maps accompanying the report of the expedition. He seems not to have known the exceptional history of the Mandans and other tribes of European and African descent. His opinion in regard to the origin of the Quichua Indians of Peru has been proved correct by many facts ascertained since he wrote. The learned and useful missionary Williams spent thirty years of his life in preaching the Gospel to the natives of the various groups of the tropical isles of the Pacific Ocean, and converted some of them to Christianity, before they were designated upon any published chart. He was massacred some years since and devoured by the savages of a newly-discovered island, and was succeeded in his pious labors by Bishop Selwyn. The witty Sydney Smith alluded to the fate of Williams when he bade farewell to his successor: "Adieu, dear Selwyn; may you agree

with the savage who eats you!"* Williams wrote a work giving an account of those islands, which is a most valuable contribution to ethnology. He has proved in it conclusively that all the copper-colored occupants of the Sandwich, Society, Friendly, and other groups of the almost countless islands which gem the bosom of the great Pacific, and also the Quichua, or Incas Indians of Peru, subdued by Pizarro, are of Malayan origin. He has done this by placing a sufficient number of common words from all their languages in parallel columns, which shows that they are all dialects of the Malay. A person who understands the tongue of the modern pirates of the peninsula of Malacca can converse with all the yellow races of the Pacific and the Quichua Indians without much difficulty. Williams made the important discovery that all the larger islands now inhabited by the yellow race were originally occupied by woolly-headed blacks, who have been destroyed by the Malays and their descendants, except in the Feejee and Solomon's isles, Australia, and a few other localities. It cannot be doubted that all the torrid belts of the earth, especially the regions which are hottest and driest, were once inhabited by woolly-haired black men. Such was certainly the case with Southern Asia, Central Africa, and the islands of the Pacific Ocean. There is also evidence to prove that a portion of this ancient race had even reached this continent prior to the discovery of

* See Note I.

Columbus; and the remnant of them were settled upon it before he landed upon its shores. In the year 1503, Nunez found a colony of them living upon the coast of the Gulf of Darien, and throughout Central America their descendants yet survive with the infinitely-mixed races of that region. It is difficult to decide whether these American negroes came from Africa or Asia, or whether they are the descendants of Misraim or Cush. Both of these sons of Ham had descendants who occupied respectively Southern Asia and Central Africa; and in the dry and burning climates of their separate habitats they were moulded into their negro types long before their primitive homes were visited by other portions of the human family, some of whom had reached Northern Asia and Europe, and were *bleaching* amid the arctic snows, while they were *blackening* beneath the tropical sun. Accidents, or rather providential circumstances, like that which landed Cabral upon Brazil in A. D. 1500, or like those by which the islands of the Pacific are sometimes visited and settled by ocean-wanderers who have lost their way, may have brought these negroes to Darien. But in ancient times they might have been introduced from Asia or Africa by the civilized empires of Egypt, or Malacca, whose ships, manned by *black sailors*, navigated all the oceans, and held commercial intercourse with the most distant regions of the earth. The ancient poet Pindar calls the Egyptians *black*. Æschylus, in one of his tragedies, makes one of the speakers in the

dialogue say of some sailors, "I knew they were *Egyptians*, because I could see their *black skins* shining through their white robes." While the ancient Egyptians lived in a patriarchal condition, in their hot and dry climate, upon the borders of the Great Desert, before they were united in one great kingdom, and became a commercial, conquering, and consequently a mixed race, exhibiting all complexions, as vast empires which absorb many different nations always do, they were certainly *negroes*, though not savages. Herodotus proves this in the fifth book of his history. Speaking of Colchis, in the ancient Iberia, he says that the Colchians were evidently originally an *Egyptian colony*, because they were "*black-skinned and woolly-haired*." Even in the time of Solomon, as late as one thousand years before the Christian era, some of them, of high rank, were *black*. Pharaoh's daughter in Solomon's Song says of herself, "I am *black* and comely as the *tents of Kedar*." The tents of the roving Bedouin Arabs are yet made of the hair of the *black Syrian goat*. But for two thousand years the Egyptians have been a mixture of many nations, and of all colors, as they are now. In the year 616 B.C., a Tyrian expedition, under the orders of Necho II., certainly circumnavigated Africa, leaving the Red Sea by the Straits of Babel-mandeb, and returning to Egypt by the Mediterranean, having passed the Pillars of Hercules, *Calpe* and *Abila*, through what is now the Strait of Gibraltar. In the reign of Ptolemy Lathyrus, Pliny

says, Eudoxus also circumnavigated Africa in the year 116 B. C. These adventurous and profitable voyages were doubtless often made by the Phœnicians, in quest of ivory and gold; and even if they did not visit America for commercial purposes, and plant colonies intentionally, which it is very certain they did, the strong tropical current and east wind continually moving from Africa to South America all things on the surface of the Atlantic, would have borne them occasionally, as they did Cabral in the year 1500, to the coast of Brazil or the shores of Darien. By some such mode, the negroes of Egypt may have been landed there; or they may have been planted there from Southeastern Asia by the ships of the great emperor of the Malays. Before the overthrow of their empire by the Tartar conquerors, and the successors of Mohammed, even as late as the tenth century, they were the most powerful of all the maritime nations of Asia. El Masudi, who wrote in the tenth century, described it as lying between India and China, and celebrated for its magnificence and high civilization. In his day, he said: "The population and the number of the troops of this kingdom cannot be counted; and the islands under the sceptre of its monarch, the lord of the sixth sea, are so numerous that the fastest sailing-vessel is not able to go round them in two years." This empire was called by Ptolemy and Marco Polo *Jaba-din*, the name of a portion of which is still preserved in that of the island of *Java*, or *Jaba*. At the time

when El Masudi wrote his book of "Mines and Gems," it included the country on the Lower Ganges, the coast of Coromandel, Chittagong, Aracan, the peninsula of Malacca, the isles of Sumatra, Java, Borneo, the Celebes, and the greater part of all the clusters lying between Asia and America. Traces of the power, and the descendants of colonies of Malays, planted when their empire was at its zenith and rivalled that of the Arabians, are found, not only over all the surface of the islands of the Pacific, and upon the coasts of South America, but also on the eastern shore of Africa, and the islands of Madagascar, Bourbon, and Mauritius, in the South Indian Ocean. But, after the tenth century, their continental possessions were taken from them by the Tartar khans, and Mohammedan sultans and rajahs, who founded new dynasties in China, Farther India, and Hindostan. They lost their distant island-colonies, and their civilization waned in Asia. Myriads of them, dwelling upon the islands near that continent, degenerated into the fierce and daring pirates who have long been, as they are now, the terror of the Eastern seas. Others, more remote, lost even the use of the compass, and sank into the condition of cannibals, like the Sandwich and Society Islanders; while those in Peru, separated long from their Asiatic mother-country, and in constant intercourse with other races in America, maintained a civilization which had assumed the peculiar form presented to the Spanish conquerors

in the sixteenth century. Masudi mentions that many of the subjects of this great island-empire in the tenth century were *black*, as a few of their descendants are at this day. For this reason I am doubtful whether the negroes found by Nunez * in Central America, in the year 1503, are of African or Asiatic descent, or whether they were originally planted there by the Egyptians or Malays. The probability amounts almost to a certainty that both of these ancient empires, in the periods of their greatest prosperity, held commercial intercourse with that part of our continent; and the descendants of these negroes are now found on both the Pacific and Atlantic shores of it.

Having now briefly pointed your attention to the Asiatic sources whence America derived the greater part of her aboriginal population, I will proceed to show how they became mingled with other races from Western Europe and Northern Africa, and how their condition and civilization were modified by this admixture. The great majority of these aboriginal tribes, whether they came from Malacca, Japan, China, or Northeastern Mongolia, prove their Scythian descent by their anatomical marks, manners, customs, and superstitions, as strongly as their relations—the modern Japanese, Chinese, and Mongols. They show the same color, high cheek-bones, beard-

* There were two celebrated Spanish explorers of this name—Alvar Nunez Cabeza de Vaca and Nunez de Balboa. The latter discovered these negroes and the Pacific Ocean. Cabeza de Vaca discovered the mouth of the Mississippi River.

less chins, and coarse, long hair, *black*, like their eyes, which characterized the ancient Scythians. They exhibit the same fondness for narcotics and stimulants, substituting indigenous plants, like the *tobacco* and *coca*, for the *betel-nut*, *hemp*, and *poppy*. Their wandering habits, the use of the bow, the wearing of the *scalp-lock*, represented by the long, *plaited cue* of the Chinese, and cultivated by all the warriors of the most savage and warlike of the North-American tribes; their horrible practice of scalping their enemies, which was observed by no other nation of antiquity except the Scythians; the common belief among them all, that all material things, whether men, animals, weapons, or money, have souls, or spiritual counterparts, in the invisible and eternal world; the worship of the spirits of their ancestors, and peculiarities strongly marked, but too numerous to mention, identify all the branches of this *yellow race* as blood-relations and the descendants of the Scythians.* But, as various families of that renowned branch of the progeny of Japheth have been mingled in Asia and Europe with other descendants of this patriarch, and with those of Shem and Ham, which have so greatly changed many of them that they bear but little resemblance to the nomadic type of the race which it assumed in Central Asia twenty-five centuries ago, and where it is yet found unaltered, so, upon this continent, the same kinds of metamorphosis and modification of the Scythian race

* See Note II.

and its civilization have been effected by similar causes. This was manifested in India, where the ruins of Elephanta are found, as it was in Mexico and Central America, where the traveller gazes with wonder and awe upon the wrecks of Palenque and Cholula.

The Knowledge which the Civilized Nations of Antiquity had of America.—The descendants of Ham

The knowledge
which the an-
cients had of
America.

were the first of the offspring of Noah who formed the great empires of the Old World. From the children of Cush arose the Assyrian, Chaldean, Babylonian, and the Arabian Empires. That of Egypt was the work of those of Misraim; while the Phœnicians, with their numerous colonies, which skirted the shores of all the seas and oceans of the earth known to the ancients, were the descendants of Canaan, against whom the curse of Noah was pronounced. Wherever the Hamites congregated, whether they were Assyrians, Egyptians, or Arabians, they were cyclopean builders, agriculturists, manufacturers, and merchants. They cultivated science, literature, and art. They were a civilized and mighty people, much of whose civilization has been transmitted, *with their blood*, to ourselves. But in all that constituted their excellence they were excelled by the Canaanites, the ancestors of the Tyrians, Sidonians, Carthaginians, and their innumerable descendants in Northern Africa and the Atlantic islands on its western coast, in Portugal, Spain, France, England, Wales, Ireland, and also in

America. The curse pronounced against this race was: "Cursed be Canaan. *A servant of servants* shall he be to his brethren." He was also doomed to be the servant of the de- The curse of Canaan. scendants of Shem and Japheth. This prophecy was fulfilled when the Tyrians, the descendants of Canaan, with their ships and seamen, circumnavigated Africa in the *service* of Necho, the King of Egypt, and the descendant of Misraim. It was fulfilled when Hiram the Tyrian *served* Solomon, the descendant of Shem, as the builder of the Temple and palaces of Jerusalem, and the importer of gold, silver, ivory, and the rare and costly products of "the uttermost ends of the earth," as his *hired servant*. It was fulfilled when Cadmus, the Tyrian chief, *served* the rude inhabitants of Greece, by giving them letters and all the arts of civilization. It continued to be fulfilled so long as these Canaanites gave monarchs their purple robes, and clothed the wealthy of every land with embroidered Tyrian garments, while they were the manufacturers of bronze, and the sculptors and builders of the ancient Orient. For two thousand years these Canaanites, under various names, were the merchants, architects, dyers, painters, sculptors, navigators, and *commercial carriers* of all nations, and, as such, they were *the servants* of all the civilized, and of many of the barbarous, offspring of all the three sons of Noah. They were literally *masons*, and they preserved the secrets of the arts with *masonic* strictness, and they even kept hid from other

rival nations a knowledge of the distant countries whence they procured valuable metals, gems, and other costly articles, in which they maintained the exclusive traffic. Long after their colonies in Africa and Europe were absorbed by the Roman Empire, they still preserved the secret of *dyeing purple*, of making bronze with tin and copper, and of hardening copper so as to make it cut steel, of night-sailing, which was done by the aid of the compass, and which Pliny mentions, and also of moving great stones whose bulk and weight defy all modern mechanical skill. Some of these ancient arts have been lost with the passing away of the servitude of the Canaanites. There is but little doubt that their intercourse with America was established long before the Christian era, and that its ancient civilization was derived from them. It is probable that all the knowledge which the Greek and Roman historians had of this continent was imparted by them. In the work entitled "How the World was peopled," I have given a summary of many facts to prove that America was known to the Greeks, Romans, and Egyptians; that the Phœnicians, who were the Tyrians, Carthaginians, the ancient Spaniards of Gades and Biscay, and the Irish, held commercial intercourse with it before the Northmen discovered it, and that the Phœnician Atlantidæ, who peopled Northern Africa about the base of Mount Atlas, also settled Atlan and Mazatlan in Mexico. In this essay I have only the space to direct your attention to the

historical facts, which are so arranged as I hope will satisfy you that the Atlantis of Plato, the Saturnian Continent of Plutarch, and the Meropia of Ælian, are not mere mythical lands, but veritable, although poetical, descriptions of ancient America after its aboriginal inhabitants of Scythian origin had been brought in contact with the Phœnicians, and the great kingdom of Xibalba had been founded by them. The Abbé Brasseur de Bourbourg, in his admirable "History of the Civilized Nations of Mexico and Central America," in the ages anterior to the discovery of America by Columbus; the Baron Alexander Humboldt, in his "History of the Geography of the New World," and Edwards, in his "History of the West Indies," have presented an array of archæological facts which prove clearly that the builders of Palenque, and of all the gigantic stone monuments which cover the ruined cities of Central America and Southern Mexico, were Phœnicians. Among the proofs afforded by their ancient sculptures are the frequent recurrence of *the globe and pendent cross* (which was the symbol of *Astarte*), *the moon*, or the Phœnician *Diana*, and the absence of the arch in all their great edifices. The Hamites who built Karnak, Persepolis, and the Pyramids of Gheezeh, and who cut out solid blocks of granite one hundred feet in length and twenty feet square, moved them a hundred miles, and set them up as polished obelisks and pillars, or laid them as the foundations of temples, may have been acquainted

with the arch, but they scorned its use, as did the builders of Uxmal and Cholula. An examination of these structures, and a comparison of them with the ruins of Syria, Egypt, and other parts of Northern Africa, are sufficient to satisfy any architectural critic that mechanics of the same school, if not of the same race, constructed them all. They prove that the *ghins* and *giants* of the Arabs were the *Colhuas*, or "bearded white men" of the Mexicans, from whom Montezuma told Cortez that he was descended, who came in ships from the East over the Atlantic, and gave to Mexico her civilization. The brilliant red of the Aztec picture-writing, in which their ancient traditions are preserved, has been decided to be *the Tyrian purple*. The *Sun*, or *Baal*, was the chief god of the Phœnicians. They were *sun-worshippers*, as we learn from the Bible. They built Baalbec—Heliopolis, *the City of the Sun*—and erected its great temple to his honor. Their temples were made to face the cardinal points. The Incas were called *the children of the sun*. They were said also to have been "the children of the sea." They were also "bearded white men," who came from the East, and civilized the Quichuas. They erected Cuzco, the City of the Sun. His vestal priestesses wore breastplates which were *golden suns*, and his reflected light in the rainbow was the beautiful banner of the Incas.

It is worthy of observation that archæological researches prove that, wherever ancient nations dwelt who have left any remains of their existence, they

held commercial intercourse with the merchants of Phœnicia. They procured wax, amber, oil, and skins, from the Scandinavians and barbarous Germans; and many of the trinkets of Tyrian manufacture which they exchanged with the rude natives of the shores of the Baltic, and the wild hunters of the forests of Germany and the mountains of Helvetia, are found in the *kitchen-middens* or *shell-mounds* of Denmark, and among the ruins of the *pile-villages* of the Swiss lakes. Wherever the country was more valuable to them, and gave them in exchange gold and precious stones, they planted colonies, and made permanent settlements. The gold of Spain, the tin of Cornwall, the vines of France, and the varied products of Ireland and Wales, caused them to take possession of those favored spots, where they have left their descendants, who are now the dark-skinned Spaniards, Portuguese, Basques, Bretons, British, Welsh, and Irish, who became mingled with the blue-eyed and fair-haired Celts, from which mixed race we are descended. They gave the name to Great Britain which it still bears—*Brit-tan-nack*, which means, in Phœnician, the *land of tin*. The slopes of Mount Atlas, upon the border of the Atlantic, and the islands on the western coast of Africa, furnished these busy and skilful traders with ivory, ostrich-feathers, dates, and various tropical products; and they crossed the Indian Ocean to bring, to the courts of the monarchs they served, peacocks and precious gems from India. But their rich *Ophir*, or

Ofor, which means, in their ancient language, the *Western country*, was Mexico and Central America, the land of gold. There too they found "the garden of the Hesperides," the *daughters of the West*—the ever-verdant Antilles—robed in the vestments of perpetual spring. The *golden apples*—the *oranges of Cuba and Ruatan*—were well known to these ancient Atlantidæ, and were prized by them as they are by their modern descendants. The *secrecy* of Phœnician masonry was the *dragon* which guarded these gardens of golden fruit. Edwards, a West Indian, in his valuable history of the West Indies, has given a list of the numerous Phœnician words which are found in the language of the Caribs, and presented other proofs of their early intercourse with "the merchants of Phœnicia," which, when added to the facts adduced by Humboldt, Lord Kingsborough, De Bourbourg, and others, leave no room to doubt that here the Canaanites were *servants of servants* to their brethren, Hamites, Shemites, and Japhetians, many centuries before Columbus penetrated their ancient commercial marts; and that they were *ministering servants* in America, as they were in Europe, Africa, and Asia. They were their manufacturers and merchants, architects and teachers, in all the branches of science, literature, and art, preserved and cultivated by these *primitive masons* who have long since passed away. Here they came in contact with the aboriginal Chicimecs, and afterward with the Toltecs, Aztecs, and numerous Scythian families, who poured down

successively from Northwestern America, or crossed the Pacific from China, Malacca, and Japan. They were gradually destroyed by them, or were so mingled with them, that their distinctive Tyrian type cannot be found, in the mixed multitude who occupy their places, more easily than we can find the genuine Roman, Greek, or Carthaginian, in Europe or Africa. But they have left the traces of their ancient occupancy of this continent as far to the North and West as aboriginal ruins are found. I do not mean to say that all the builders of the quadrangular pyramids facing the cardinal points were *Colhuas*, or Phœnicians; or that they built the *casas grandes* of New Mexico, or wore the copper trinkets and neatly-carved stones found in them; or that all the tribes in whose dialects their word for water, *atl*, occurs, and in which the *clicking* sound of the letters *tl* is heard, as in *Popocatepetl* and *Tlamath* Lake, are their progeny; but these peculiarities are evidences of their intercourse with the aboriginal races of America, and the proofs that their superstitions, languages, and customs, were affected by them.*

In the work which I mentioned, "How the World was peopled," I have traced the migrations of these aborigines more clearly, and, avoiding the ground already occupied by Schoolcraft, Squier, and others, and examined under the auspices of the Smithsonian Institution and Indian Bureau, I have made all the additions which facts collected by my own

* See Note III.

researches have enabled me to present, to show how our continent was settled before its discovery in 1492. There you will find it demonstrated that, although these aboriginal remains are, in some instances, very ancient, yet that none of them afford any proofs upon which the theory of the *preadamite existence* of men can be based, or by which that of the descent of the ancient races of Americans from original parents different from our own can be established. In this essay I have asserted that America received her ancient population from Europe, Asia, and Africa, and there you can examine at your leisure the proofs that on this continent the descendants of the sons of Noah, who have overspread "the whole earth," have been mingled together thoroughly, as they have been in Western Europe, around the Caspian Sea, and about the Hindoo-Koosh Mountains of Asia—the *Caucasian centres* of the Old World.

Having now condensed in this historical essay as many thoughts in regard to the early peopling of this continent as its proper limits would permit, and as I hoped would interest this society, I will conclude it with these reflections, suggested by the subject:

In reviewing the history and examining the present condition of the inhabitants of the four grand divisions of the earth, we cannot observe without deep emotion the similarity which they present in their wonderful revolutions, and the uniformity of their causes and results. In Europe, Asia, Africa,

and America alike, every fair and fertile spot has experienced the same alternations of moral and national sunshine and shadow. Where the light of civilization shone brightest in past ages, the deepest darkness of barbarism lowers now. Among the magnificent ruins of the palaces of Mesopotamia, where such mighty monarchs as Nebuchadnezzar, Cyrus, and Alexander the Great, held their courts, and reigned over all the civilized and enlightened nations of Asia—amid the pyramids, obelisks, sphinxes, and all the stupendous ruins of Egypt which attest the wisdom and power of the Pharaohs and their subjects; and the wonderful sculptured remains of Axum in Abyssinia, where the wise and powerful Queen of Sheba was enthroned, and swayed millions of cultivated and prosperous Arabians, Ethiopians, and Sabeans—miserable and ignorant Yzeddis—devil-worshippers—degraded Copts, mongrel Mohammedans, and pagans, or wild Arab robbers, build their huts or pitch their tents, who gaze with stupid awe upon the monumental wrecks around them, but cannot read their inscriptions, and know nothing of their builders. Crouching slaves or fierce bandits, ignorant of letters, and destitute of all virtue, occupy the pass of Thermopylæ, and infest the waters of Helicon and the vale of Tempe, and know and care as little about Homer, Aristides, Marathon and Salamis, as the Indians of Utah and Yucatan do of the temples and mounds of our native land. As members of the Historical Society, it becomes us to inquire what is

the cause of these terrible revolutions? Why does the wigwam of the savage, or the tent of the demi-civilized nomad, stand upon the ruins of the palace of the monarch, and why does the wild forest or the cheerless desert spread where cultivated fields and cities flourished? The solemn answer is given in these inspired words: "Righteousness exalteth a nation, and sin is a reproach to any people;" and the "nations that forget God shall *utterly perish*." The pyramids of Mexico and the mounds of the Mississippi Valley attest this truth as clearly as it is uttered by the monuments of Mesopotamia, and the catacombs of Egypt. The implements of their bloody sacrifices, the bones of the builders, decayed by disease before death ensued, the statues and altars of Venus and Bacchus, and all the painted and sculptured honors paid to the demons of murder and sensuality, and preserved in these tombs of nations passed away, are the witnesses of their idolatry, ferocity, and *total depravity*! *They forgot God and his law, and they perished*. As historians, our researches into the past will profit us as patriots who endeavor to promote the welfare of our country only so far as we learn this lesson, and shun their vices, that we may avoid their fate. Our republic has risen amid the wrecks of great kingdoms, whose remains cover all the continents. She has attained a degree of grandeur almost equal to that of the greatest of them all. It is fearful to see how corruption has grown with her growth; and how the vices

which hurled great Babylon in ruins, and made Rome "the Niobe of nations," are gradually embracing the individuals who compose the body-politic, and at the same time are progressively infecting every department of our government! The graves of buried empires yawn beneath us, and a voice from the eternal darkness which shrouds them warns us that nothing but that *righteousness which is implicit faith in the incarnate God, and perfect obedience to his law*, can save our republic from their awful doom, and crown it with prosperity and permanent glory.

NOTES ON THE LECTURE ON THE ABORIGINES OF AMERICA.

I. I dislike to spoil a good anecdote, but historical truth requires me to do so. While in Baltimore, during the session of the General Convention of the Protestant Episcopal Church, which assembled October 4, 1871, Bishop Selwyn, now the Bishop of Lichfield, England, was present as a much-honored visitor, and I was introduced to him. I told him that I had read two versions of the parting interview between him and the Rev. Sydney Smith. The one was: When the witty clergyman bade him farewell, he said, "Adieu, dear Selwyn; may you *agree* with the savage who eats you!" The other mentioned a dispute between them, about some matter, in regard to which they could not agree. When they parted, Sydney Smith said, "Adieu, dear Selwyn; you will certainly *disagree* with the savage who eats you." I asked him which version was correct. He replied: "There is not a word of truth in either. I never saw Sydney Smith in my life." What must we think of the authenticity of historical anecdotes when we find one which seems to bear the stamp of internal evidence

of its accuracy thus clearly falsified? The remark is so much in the style of the great reviewer, that it seems almost incredible that he did not make it.

II. I ought to call attention to another peculiarity of the yellow race of Cuvier, divided by other naturalists into the Turanian, Mongolian, and American, and which adds to the proofs that the American aborigines, the Chinese, the Tartars, or Tatars of Asia, the Japanese, and other yellow and scant-bearded races, are very nearly related. They possess less musical talent than any other branches of the human family. The Chinese ring bells and clatter gongs, while the American Indians rattle terrapin-shells with loose pebbles. They make a diabolical din, sufficient to drive an Orpheus mad; but they have no idea of music, such as the ancient lutes, lyres, and harps of Egypt, Greece, and Italy, produced, and which is yet cultivated by the descendants of the ancient Celts and Goths of Europe. The poorest Scotch Highlanders, wild Irish, Swedes, and Swiss, sing and play delightfully; and the most savage of the woolly-headed negroes of Africa are respectable musicians; but the most enlightened of the yellow races, and even those who have a large infusion of Scythian blood, like the modern Turks, produce no music of the first class.

III. The effect of habitat upon the languages of the various races deserves the attention of the philologists who are laboring to improve their important department of science.

The climate, and other peculiarities of the different zones of the earth, affect the languages of nations of the same race who have long occupied separate localities almost as much as they do their forms and complexions. This will be made evident by examining the names of islands, countries, rivers, and mountains upon the map of the world. Among the yellow race occupying Lapland, Finland, Siberia, and the whole of the hyperborean regions of Europe, Asia, and America, we find names which could not be pronounced by their kindred in Southeastern Asia, Polynesia, and tropical America. The Siberian *Krashnobovsk*, and *Okhotsk*, in Otaheite would be changed into *Tlas-no-vo-la* and *O-ko-la*. The harsh, discordant languages abounding in dental consonants and guttural sounds

characterize all the ancient inhabitants of polar climes, no matter what may have been their ancestral types, while all the old nations of the south-temperate and torrid zones speak dialects made musical by a preponderance of vowels and liquid labials. In glancing the eye from the west of Europe to the east of North America, between the parallel of 50° north latitude and the shore of the Polar Ocean, it rests upon such words as Stockholm, Drontheim, Novgorod, Irkutsk, Tomsk, Kamtchatka, Kwick-pak, Passadumkeag, Pemadumcook, and Memphremagog. In the south-temperate zone of both hemispheres we find the nomenclature greatly improved in such names as Mercia, Cordova, Andalusia, Sardinia, Italy, Sicily, Morea, Armenia, Persia, Afghanistan, China, California, Missouri, Alleghany, Alabama, Tallula, and Oconee. But in the torrid zone all roughness disappears from the aboriginal dialects, and the geographical names are left soft and musical, as in Canary, Dahomey, Abyssinia, Adel, Arabia, Hindostan, Ceylon, Papua, Tonga, Toobonai, Chili, Lima, Araucania, and Peru. The principal cause of the difference is probably the climates of the zones. During the long and cold winters of the frigid zones, when the moisture of the breath freezes, conversation must be held with the mouth shut as much as possible, to exclude the chilly air from the lungs; or to admit it tempered by a passage through the smallest apertures; which necessity encourages the use of gutturals, and such sounds as can be most easily produced with the teeth clinched, and the lips closed, or as little parted as they can be to permit the issue of sound. There are sounds in the beautiful Castilian too harsh for the ear of a Spaniard long settled in the tropics. In Mexico and Central and South America the descendants of the Spanish colonists have discarded the aspirate sound of *x* and *j* in *Mexico*, *Texas*, *Bejar*, and the sound of *th* in *d* when it occurs between two vowels, as in *Colorado* and *Guadaloupe*. In Castilian these words are pronounced *Ma-he-ko*, *Ta-has*, *Ba-har*, *Col-o-rah-tho*, and *Waugh-tha-loo-pee*. The tropical creoles change them into *Ma-e-ko*, *Tay-as*, *Bay-ah*, *Col-o-rah-o*, and *Waugh-lou-pee*, which are much softer.

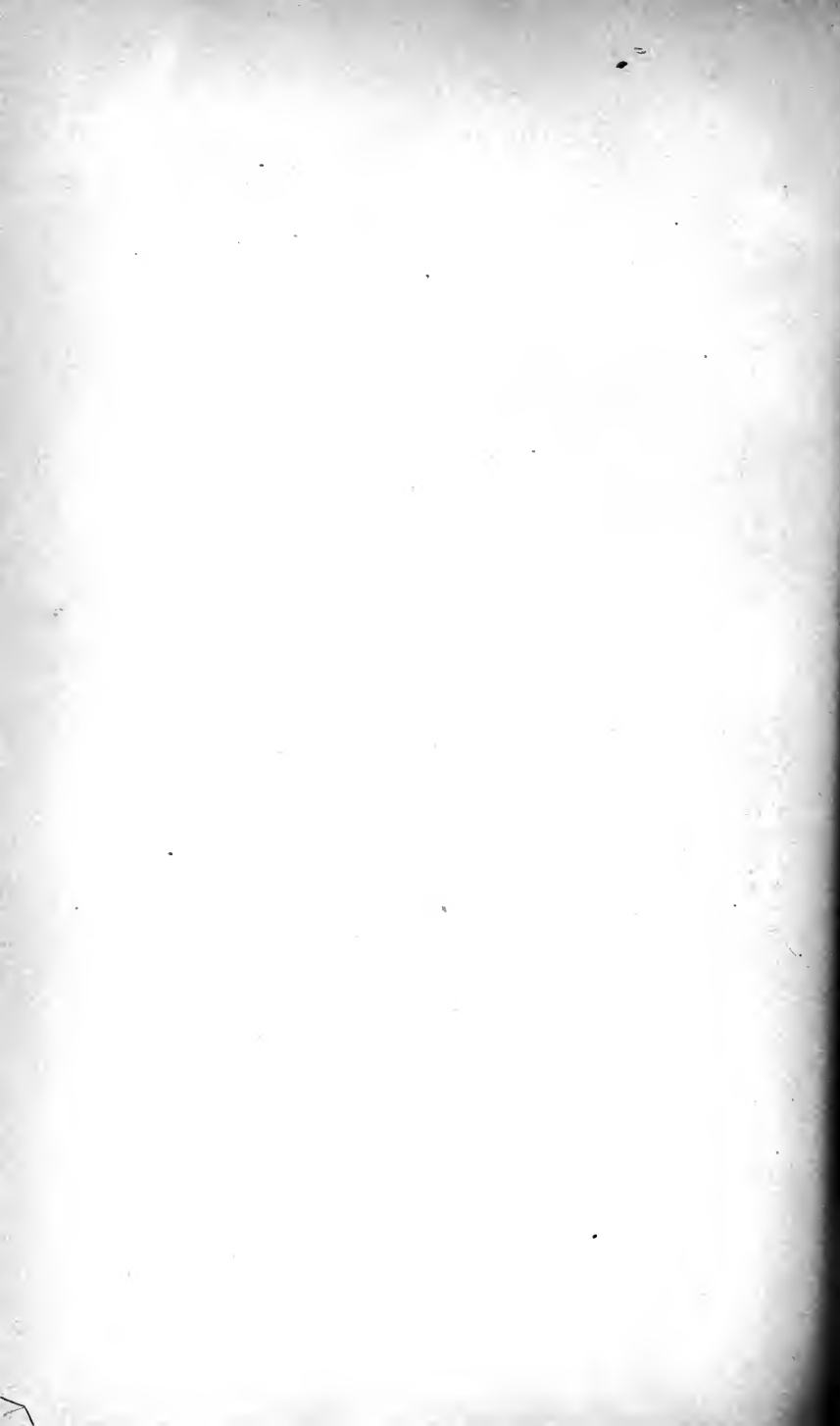
IV. *Philology, and its Relation to Ethnology*.—In the preparation of materials for this work on ethnology, I consulted

carefully the best treatises on philology; but I have found it necessary to use them very sparingly. My reason for this is correctly stated by Prof. Max Müller in the first volume of his admirable lectures on "The Science of Language," pp. 326, 327: "The problem of the common origin of languages has no necessary connection with the problem of the common origin of mankind. If it could be proved that languages had different beginnings, this would in no wise necessitate the admission of different beginnings of the human race. . . .

"The science of language and the science of ethnology have both suffered most seriously from being mixed up together. The classification of races and languages should be quite independent of each other. Races may change their languages, and history supplies us with several instances where one race adopted the language of another. Different languages, therefore, may be spoken by one race, or the same language may be spoken by different races; so that any attempt at squaring the classification of races and tongues must necessarily fail." For these excellent reasons I have used the similarity or identity of languages spoken by races now occupying widely separated regions to prove a former intercourse between their ancestors.

A variety of other proofs are necessary to establish identity of blood and origin. I regard the large number of Phœnician words found in the languages of the Caribs, a list of which is given by Edwards in his excellent history of the West Indies, as affording good evidence that the ancient Tyrians or their descendants held commercial intercourse with the Antilles. Although the greater part of the whole area of Asia and Europe separates the modern Hindoos from the abodes of the French, Germans, and British, the Aryan type of their languages proves conclusively that the Sanscrit was the language of their ancestors three thousand years ago. Other facts make it probable that in a remote period of antiquity the progenitors of their Scandinavian ancestry must have lived in the region watered by the tributaries of the Oxus and Indus. I have not applied the terms Aryan, Turanian, and Shemitic, to designate the varieties of the human race, or the peculiarities of the tongues they speak. Their types are changing continually; their blood is variously mixed, and their languages, infinitely mingled, are varying more rapidly than their anatomical types. For ethno-

logical classification I prefer the simple terms, white, black, and yellow races, adopted by the Baron Cuvier, the greatest natural philosopher the world has yet produced. These colors mark the three great branches of the human family as distinctly as "the predicative and demonstrative roots" are displayed in their languages, classed by Müller as the Aryan, Turanian, and Shemitic. The three natural divisions of the polyglossal dialects of mankind discovered by this accomplished philologist, and other competent professors of languages, point obscurely to the miraculous confusion in Babel of the tongues of the families of the three sons of Noah, and which the Bible makes the reason for their original separation and dispersion over the earth. Ethnographic researches prove their radiation from that point, and the tendency of all their ramifications to maintain three leading types, while philological discoveries show that all the languages they speak belong to three great branches. I have read and discovered nothing to make me doubt the scriptural assertion that all the descendants of Noah had "one language," and that it was obliterated when Babel was founded. The name of Babylon perpetuates the memory of the miracle which drove the patriarchs from the spot, in three divisions, and probably with three original languages, which have been since mingled and changed infinitely, but which nevertheless continue to show a tendency to flow, like the blood of those who speak them, in the three channels which at first marked their Shemitic, Hamitic, and Japhetic types. No matter how the races of men and their languages have been metamorphosed and commingled, the process by which the interchange and admixture is wrought, and the nature of the compounds produced, prove that all the races of mankind are but forms of one common humanity, which originated from the same source.



THE PHYSICAL GEOGRAPHY OF THE MISSISSIPPI RIVER.

Extracts from Lectures before the PEABODY INSTITUTE, in Baltimore, delivered
December 18 and 21, 1871; and before the AMERICAN GEOGRAPH-
ICAL AND STATISTICAL SOCIETY OF NEW YORK,
delivered December 26, 1871.



THE MISSISSIPPI RIVER.

CONTRIBUTIONS TO ITS PHYSICAL GEOGRAPHY.

Description of the Peculiarities of the Scenery of the River and its Bottom where De Soto first saw it, from Memphis to Vicksburg.—*The Savyers, Islands, and Tow-heads*.—Its Crumbling Banks, and the Shifting of its Channel; Causes explained.—Peculiarities of the Scenery and Climate of the Lower Coast.—Temperature of the River and Gulf, and its Effect upon the Vegetation of this Part of the Delta.—The Northers, Typhoons, and Whirlwinds described, and an Explanation of their Cause given.—The Insects and Reptiles of the Delta.

THE first time I saw the Mississippi River was in the month of December, 1838. The Chickasaw Indians, who had for several centuries occupied the northern part of Mississippi, had sold their lands, embracing about a third of the whole area of that State, to the United States, in 1833, and had all migrated to the Territory ceded to them west of the great river. The county of De Soto had been organized, and the new town of Hernando built, and immigrants from all the older States were pouring into the country, and commencing their improvements upon the sites of the wigwams and the fertile hunting-grounds of the six thousand Indians who had relinquished their valuable heritage forever to our race. The celebrated John Wesley, the founder of Methodism, while he was a missionary in the colony of Georgia, during the administration of

Where De Soto
first saw the
Mississippi.

John Wesley's
account of the
Chickasaws in
1739.

Governor Oglethorpe in 1739, described the Chickasaw Indians as being then in number and character precisely as they were a hundred years afterward. He said they numbered about six thousand, and that they were the most truthful and honorable of all the savages of America who had any intercourse with the English. It was through their country that De Soto marched in his adventurous search after the El Dorado of the West. They treated him with great hospitality until he provoked their hostility by his rapacity and cruelty. They then fought him gallantly, and he vainly attempted to subdue them. They marked every step of his advance, from the Tombigbee River to the Mississippi, with blood. They destroyed most of his horses and many of his soldiers, and he only escaped from their fury by crossing the Mississippi, which was the western boundary of their territory, and by continuing his march with his shattered forces in the dismal and malarious swamps on the opposite shore. As late as 1836, about two hundred and ninety years after their war with the Spaniards, these Indians had preserved a distinct tradition of De Soto and his barbarities, and spoke of the invaders with detestation and horror. They loved the English, who had an agency among them in 1760, and it was their boast that they had never shed the blood of a white man. They regarded the swarthy Spaniards, mailed in iron, and mounted upon horses—animals which they had never seen—and armed with muskets and artil-

lery, as supernatural and destructive demons, or men of a different race from themselves or the white colonists of England. They took no part in the war of the Revolution, or in that of 1812. The United States paid them three million dol-

An honorable treaty.

lars for their land, and reserved to each Indian a section of land, leaving it optional with them to remain upon their reservations under the laws of Mississippi, or to go to the lands assigned them in their Trans-Mississippi territory. They preferred selling their individual property, and migrating. The treaty and its honest observance were highly honorable, alike to our Government and to the Indians. They were about six

thousand in number, and the treaty made each Indian worth five thousand dollars in gold, and they were the wealthiest nation,

The Chickasaws in 1836 the wealthiest nation in the world.

in proportion to their numbers, in the world. Two thousand of them had made a profession of Christianity. Many were civilized planters and stock-raisers, and some of them owned large numbers of negro slaves and herds of cattle. For their civilization they were mainly indebted to General Washington, through one of their chiefs named Colbert, who died at a very advanced age after the

Washington the civilizer of the Chickasaws.

treaty, and before their migration. He visited General Washington in Philadelphia, while he was President, and brought back with him a small *shovel plough*, which he presented to him, and which was carefully preserved by him in his house until he died. It was a great pleasure to the

His present and speech to Colbert.

venerable chief to relate its history to his white guests, and to repeat to them this speech, which General Washington made to him when he presented it: "When you go home, tell your people that if they attempt in this age to live as their fathers did, by *war*, and by *hunting*, they will perish and pass away from the earth like the many tribes who have died where the white men live. But if they will quit war and hunting, and make corn with the plough, and use the tools of the white men in clearing their land, building houses, and cultivating the earth, and if they will raise horses, cattle, and hogs, and adopt the religion and customs of civilized and Christian nations, they will live long and prosper as a people." Colbert, and all the principal men of his tribe, adopted this wise advice; he died possessed of great wealth, after living long as the benefactor of his race; and his nation is yet prosperous. I have said this much about this interesting tribe of aborigines, because it was through their country that De Soto marched to the Mississippi, which he reached in their territory. The precise point where he first saw it has never been certainly determined. The Chickasaw tradition that it was at the present site of Memphis, is probably correct. Recent historical investigations, made since the white settlers of "the Chickasaw nation" named the county *De Soto*, and its county-seat *Hernando*, in honor of the brave and enterprising Spaniard, make it clear that he did not discover the Mississippi in

De Soto did not
discover the Mis-
sissippi.

1542 or '44, nor did La Salle anticipate other European adventurers in finding its mouth more than a century later. The narrative of the travels and voyages of Cabeza de Vaca, translated by the late Buckingham Smith, proves that this Spaniard, Alvar Nunez Cabeça or Cabeza de Vaca, discovered its mouth November 2, 1528.

Alvar Nunez Cabeza de Vaca discovered the mouth of the Mississippi in 1528.

In sailing from the coast of Alabama west, he passed the mouth of the Mississippi, and his narrative gives such a description of the outlet, and the peculiarities of the adjacent coasts which he saw, as will be recognized by any person who has ever seen "the passes," as they are termed, and "the mud-lumps" about them. He found a great body of fresh water rushing out with a strong current into the Gulf of Mexico. He endeavored to ascend the river whose water he drank far from the land, but a "norther" was blowing at the time, and the combined force of the wind and river-current prevented him. No sailing-vessel can enter either of the passes, and ascend the river in the teeth of the wind and the river's current. But, although Columbus did not discover America, nor La Salle nor De Soto the Mississippi, they, and the hardy heroes who were their companions and contemporaries, deserve all the admiration and gratitude we can bestow upon their memories. Their skill and daring certainly gave America to Castile and Leon, to Portugal, France, England, Denmark, Holland, and Russia. Their valor, fortitude, and sublime enthusiasm, overcame perils and

obstacles formidable as the fabulous Cyclops, Lestrygones, and Scyllas, braved by the mythical heroes of antiquity; and they deserve the lays which have been sung and the monuments which have been reared to perpetuate their fame.

The point where I first saw the Mississippi, and which I must introduce as it first impressed me, and excited my curiosity to explore its wonders, was interesting, not only as being near the spot where De Soto crossed it, but as one occupied by the predecessors of the aborigines whose arms he encountered. That part of the valley of the Mississippi, including the area between the Cumberland Mountains where they terminate near Tusculum and Florence, and the mouth of Big Black River, and which embraces the valleys of the upper tributaries of the Tombigbee, with the country watered by Wolf River, and all the affluents of the Yazoo and Big Black, was once densely peopled by "the mound-builders," who preceded the Indians who occupied America in the time of Columbus. All the more fertile parts of the lands of the Choctaws and Chickasaws which lie within the limits of Mississippi, and formerly in a part of Alabama and Tennessee, show the former occupancy of a much more numerous and more highly-civilized race, whose remains are found wherever I have examined the rich lands of the West between the Alleghany and the Mississippi. The whole valley from Cairo to the mound of Point à la Hache, on the bank of the river, fifty miles

The Egypt of
the mound-
builders.

below New Orleans, is full of them. They are found not only on the Ohio, and the Trinity River in Texas, but in every situation between those points which would now be selected, as a favorable spot for planting and farming, by a skilful agriculturist of the present age. The Choctaws and Chickasaws did not claim the builders of these tumuli as their ancestors, and knew nothing about their history. But the Egypt of this extinct race was the whole of the western part of Mississippi, including the fertile terraces of the present river-bottom, called "the Bluffs," and the wide area of alluvium irrigated by the Yazoo and the numerous bayous which connect it with the Mississippi; and which, if they were not canals made by them, were certainly "leveed," and controlled and utilized for agriculture, navigation, and commerce. An examination of the levees which they constructed upon the banks of these natural or artificial canals, and the multitude, magnitude, and scientific construction of the various kinds of mounds, which are so numerous as to give to the Yazoo River its present Choctaw and Chickasaw name, *Yazoo-ok-hinnah—the river of ancient ruins*—will convince any antiquarian that multitudes of industrious toilers, as numerous as those which swarmed upon the Lower Nile, and built its canals, pyramids, temples, and cities, navigated the waters and cultivated the lands of this region in past ages. When I explored it, the white immigrants had commenced making their settlements in it. The Chickasaws had migrated. The

ancient canals, levees, pyramids, and their former fields, were all covered with the dense forest, and the neglected and unrestrained waters reflected the dismal scenery of a vast and fearful wilderness. The Indians only penetrated portions of this region, where their predecessors built, labored, flourished, faded, and passed away, in the dry seasons when the waters had receded. De Soto got involved in the intricacies of these great forests and impassable bayous, and, poisoned with malaria, and worn down with toil and want, he died. From the town of Hernando, named after him, going west I examined the aboriginal ruins of the Mississippi bottom, and passed through what was the most populous portion of their ancient domain, favored by a very dry season and pleasant weather, when the Mississippi was at its lowest stage of water, and I saw it for the first time thirty miles below Memphis, near the present site of the town of Commerce.

About a mile in width, between deep banks twenty or thirty feet high at that point, the immense volume of dirty, yellowish-brown water rolled along swiftly and silently. It was a grand and fearful-looking object, and my first view of it excited my admiration, mingled with a degree of terror. Not a human habitation was in sight, and no vestige of the work of man appeared to cheer me. Three large quadrangular pyramids, the work of an unknown and extinct race, were near me, and only served to deepen the gloom of the forests

The appearance of the Mississippi at low water, below Memphis.

which shaded both shores. I could not call it a *primeval wilderness*, because these mounds, and many others which I had passed, and the well-leveed bayous I had crossed, proved that all the older alluvial bottom had been cleared and cultivated ages ago by the vanished race who constructed these immense works now covered with great trees, bushes, cane, and tangled vines. Where the strong current of the river flowed against a precipitous bank of stratified sand and clay of various colors, the whole mass for a half mile in length was tumbling into the excavating tide, and one of these mounds with all the trees upon it had lost half of its bulk, and was falling into the muddy waves, to be transported to form the Delta of Louisiana, or to build up some part of the gulf or ocean bed; or else to add to the new land of some distant island or continental shore.

From the opposite bank a yellow sand-bar, laid bare by the shrunken winter volume of water, projected for a quarter of a mile. The wreck

Sand-bars.

of a flat-boat was stranded upon it, and the whole bed of the river was studded with what are termed *sawyers*, more ex-

Sawyers described, and their cause explained.

posed at low water, but not more dangerous than when it is higher, and when their projecting points are covered slightly and concealed thoroughly by the turbid current. These sawyers are the most formidable pests to the navigation of the great river, when the sand and mud bars can be passed. They are long-seasoned logs fastened to the bottom of the river,

with their points turned down-stream, and aimed directly at the prows of all vessels ascending the mid-channel. They are formed, abundantly, from August until the river sinks to its lowest point, by the caving of the banks, which are undermined by the deep and rapid bottom-current, and, as the surface falls below the layers of clay from underneath which the sand has been washed out, the clay and surface soil are left without support, and the banks topple down, and fall with a sullen roar into the river, with the trees, and often with the houses, and, in the course of a few years, with all the plantations, on this part of its restless and ever-shifting course. The trees, many of them more than one hundred feet long, divested of the earth adhering to their roots, float off toward the Gulf of Mexico; but, if much tenacious clay sticks to them, their roots are sunk beneath the surface, and their buoyant tops swim with the tide until the heavier butts drag upon the bottom, and fasten to it. The floating tree then stops. Its roots are deeply buried by the moving sand, and all that rolls upon the river-bottom. The lap of the tree, with all its outspread branches, is swayed in the direction of the current, while its roots are firmly anchored. All the branches which extend laterally are broken off by the heavy drift-wood, which is hurled against them with force, as they are borne along at a velocity which averages four miles per hour. In high water, even in

Where they are
formed.

How they are
formed.

The planting
and trimming
of the sawyer.

The velocity of
the current of
the Mississippi.

the Delta, the current of the Mississippi flows at the rate of five miles an hour, and it is almost incredible that a log is borne by it in a single day one hundred and twenty miles. This drift-wood, aided by the flat-boats and steamers which glide over it, breaks off the branches, and sharpens the trunk of the tree, and completes the manufacture of the dangerous *sawyer*. If it is a long and elastic tree, it is pressed down by the heavy volume of water when a strong eddy rolls over it; but its elasticity makes it spring up above the surface again; and thus it sinks below the water-level, and rises again, with the regularity of a great pendulum. It is this up-and-down movement, like the working of an old-fashioned *whip-saw*, which has given these terrible snags the name of *sawyers*. At low water they are seen everywhere between Cairo and Baton Rouge, but more abundantly below Memphis, obstructing the channel, with their inclination about that of the muskets of a line of infantry prepared to receive a charge of cavalry, with the butts of their weapons planted firmly upon the ground, and their bayonets pointed toward the breasts of the advancing horses. Woe to the ascending steamer whose prow or hull meets the sawyer's point! A stunning shock suddenly arrests its course. The huge beam crashes through the bottom and decks, and rends a vast orifice, which lets in the rushing waters. Its fires are extinguished and its wheels are stopped. Spitted, impaled, and powerless, it sinks to the bot-

Why they are
called *sawyers*.

The mischief
they do.

tom. If the water is deep, and it is far from shore, and especially if it is in the winter, or in the night, not only are the boat and cargo a total loss, but few of those on board escape with their lives. The banks of the river are strewn with the wrecks made by these sawyers. How often have you read the brief newspaper item: "The steamer —— struck a snag, near the mouth of White River, and went down in deep water. Boat and cargo a total loss. —— passengers saved; —— drowned!" The stumps and trees standing upon the caving banks have their roots in such friable and crumbling soil that they make very insecure supports for the fastening of the hawsers of the steamers. At high water the river is within a few feet of the tops of these precipitous banks, which are generally used as wood-yards for the convenience of the steamers that can run in the deep water which flows against them, and take on the wood without difficulty. But, in doing what is called

"Rounding-to," to wood.

"*rounding-to, to wood*," it is necessary to throw out a hawser and fasten it to a tree or stump. If this is near the edge of the treacherous bank, when the weight of the boat borne down by the current pulls against it, the bank "gives way," and down comes the tree or stump, and the vessel floats off. These unstable banks, the sawyers, and drift-wood, give origin to some queer but very expressive Western sayings. When a man proposes to form a partnership with another with whom he is not very well acquainted, and

Western sayings.

consults a friend who knows him, whether his association with him would be prudent, he is told, if he is unreliable, that "he will not do to tie to." He is like a stump that will not

"Won't do to tie to."

hold the steamer fast. The famous Confederate cavalry-leader, General J. E. B. Stuart, who was a very ardent and fast friend, in writing to his associates usually subscribed his letters, "Yours, to tie to." An allusion is made to the sawyer, when a rash individual encounters an antagonist whom he expects to vanquish easily, but is mistaken, and gets wofully defeated. It is said that "he ran against a snag." When an inhabitant of the

"Run agin a snag."

Mississippi bottom wishes to assure you how a thing apparently difficult and dangerous can be performed in the easiest manner possible, he draws his illustration from the drift which covers abundantly all the lakes and bayous, as well as the surface of the great river. Upon this drift-wood myriads of water-terrapins, snakes, and alligators, lazily bask in the sun. When suddenly alarmed, they drop from it instantly, and disappear in the water. The Mississippian tells you that the thing can be done

"Falling off a log."

"just as easily as falling from a log."

These people express their detestation of the leaders and members of the corrupt rings who plunder the public money, and hold it with a miserly clutch, callous to popular censure, and deaf to the voice of conscience,

"The grip of a snapping turtle and the hide of an alligator."

by averring that the hardened villain has "the grip

of a snapping turtle, and the hide of an alligator.”

But when I first saw this famous artery, the great aorta of North America, it was, as I have said, in a wilderness, in the early part of December, when the water was at its lowest stage. It was unusually shallow upon the bars, so much so that the great steamers were not running; and the mosquitoes, snakes, turtles, and alligators, had all gone into winter-quarters. The modern aborigines had moved away; the white immigrants had not taken their places in that wilderness; the mighty river was flowing by the temples and ruined abodes of the primitive mound-builders whose dust was in the graves around me, and in solitude and silence I contemplated the scene, and studied its mysteries without molestation. The sawyers had been planted by the fall and rise of the last season, and were ready for mischief. The low islands, and the near and distant points of land, were singular-looking objects. The last three years' deposits of the river were plainly marked, and presented a great similarity of appearance on all this uninhabited part of the river thirty-three years ago, in 1838; and a description of it will give an idea of most of the extensive area between Memphis and Vicksburg, where the bottom is the widest, and no high land is in sight from the river. Evergreens, like the water-oak, bay, wild-peach, and magnolia, are only found upon the alluvium which has been deposited for many years. The live-oak and Spanish

The habitat of
different trees
and plants.

moss are not found above the thirty-third degree of north latitude. They both require a warmer temperature and the breath of the southeast monsoon for their support. But on the newly-formed islands, and the points of the convex bends, no evergreen trees were visible. First appeared the recent-

ly-made sand-bar, clean and bare, ready ^{Terraced batture.} to receive the loam to be deposited upon it the next year. Above this rose the land made by the last *rise*, covered with straight switches of young willows which had grown up since the waters commenced receding in July, and which varied in height according to their age, represented by their distance from the water's edge, from two or three inches to four or five feet. Elevated a few feet above this last-formed alluvium arose that of the preceding year, supporting a dense thicket of willows and cotton-wood, twenty or thirty feet in height. Yet more elevated was a third terrace, bearing large trees, generally the same kinds of cotton-wood and willows, the varieties common on all the waters of the South-western States emptying into the Gulf of Mexico, and described by Michaux, and other writers on our American Sylva, as the *Populus angulata* and *Salix nigra*. Some of these poplars or cotton-wood trees, when three years old, attain a height of forty or fifty feet. The French give the name of *batture* to all the alluvium of the river three years old. The last terrace, or the fourth of this very recent formation, is the most elevated part of the bottom. Its age can

only be ascertained comparatively, by the superior size of the forest-growth, which includes the sweet gum, or *liquid amber*; and the elm, hackberry, box-elder, linden, mulberry, and, where it is oldest, all the forest-trees of the Southern States, except those which grow upon uplands exclusively, or poor and sandy bottoms like those of the Pearl River of Mississippi, and the Sabine of Texas, which produce the pine, black-jack-oak, and other trees indicative usually of a sterile soil. But on the newly-formed islands and projecting points of the part of the river I am describing, between Memphis and Vicksburg, the cotton-woods and willows, interspersed with a few sycamores, are the most prominent growth, and, as they cover the new *batture* so densely as to be almost impenetrable, they grow very straight in struggling upward to enjoy the light, and their tops terminate in long, narrow cones; while the old cotton-woods, more than a hundred feet high, on the margins of the *batture* and caving banks, send out their branches laterally, and their tops assume a hemispherical or dome-like appearance. In the winter these deciduous trees lose their leaves and the gray color of their bark; and innumerable branches and twigs, unrelieved by any other hue, give these islands and points of land a very weird and wintry aspect. Their color and form have caused them to be called *tow-heads* by the boatmen.

I have now given you some idea of the most strik-

ing objects of view on this part of the river—the *sand-bars*, *sawyers*, and *tow-heads*. It is easy to see how these alluvial islands are made. The rapid current of the Mississippi, acting upon its own stratified alluvium of alternate layers of sand and clay, and undermining continually and sweeping away the forests which grow upon its banks, shifting its channel sometimes from ten to twenty miles in less than a century, and bearing down to the gulf by its deep and irresistible tide the entire growth of many thousands of square miles, as it shifts its deep bed from one side of its valley to the other, enables us to account for the peculiarities of its formations, some of which differ from those of all the other great rivers of the earth. None of them has so swift a current, or bears to the ocean such tributes of floating forests.* An examination of a section of its banks will show how it performs its destructive work of undermining its forests, the levees, fields, and abodes of its inhabitants.† It must be remembered that its bottom-current is as swift as its surface, and that the average velocity of the whole volume of the river is four miles an hour, or ninety-six miles a day. The bottom-current, flowing against a bank, washes out the sand which supports the clay. As I have mentioned, the whole then falls into the deep water. I have seen as much as five acres fall into the boiling eddies and suddenly disappear. In 1844, in the

*The islands.
How they are
formed.*

* See Note I.

† See Diagrams, Plates XIII. and XIV

month of August, while the waters were falling, I travelled up the right bank of the river, from one point to another, twenty-five miles, opposite the cities of Grand Gulf and Rodney. In many places, by the rise of that year, the levees and roads had been cut in two, and swallowed by the engulfing waves. I had often to make wide *détours* to avoid the cracks and crumbling ground, and drive through the cultivated fields at a safe distance from the devouring tide.

A narrow es-
cape.

While driving a hundred yards from the river, which was on my *right*, I observed, twenty feet *before* me, and flanking me on the *left*, a fresh crack, about six inches wide and very deep, extending from the river far into the field. I drove rapidly across the chasm, and had not passed it thirty yards when the entire mass, bearing more than an acre of cotton, sunk behind me, and vanished with a fearful roar in the inrushing eddies! The levee, road, and front yard of the large residence of the wealthy owner of the plantation, had fallen in; and I observed a fine old Lombardy poplar, which had been undermined, floating on the water, and hanging to the disintegrating bank by a few of its roots. A beautiful avenue of its companions had all been washed away, and it was on the eve of its departure to follow them on their voyage to "the passes," and to join the drift of the winds and currents of the Gulf. I found the family busy moving the furniture and valuables of all kinds to some temporary houses hastily erected a mile distant

The destruction
of a cotton-
plantation.

from the river, and preparing to abandon their residence to its inevitable fate. A few years afterward I passed the spot on a steamboat, and the captain of it told me that the deepest part of the river then flowed where that mansion once stood.

The islands are formed by the trees which are undermined and floated away. The tops and branches of whole clusters of the largest of them, supporting masses of grape-vines and creepers, are tied together by them, and in that tangled condition are borne off by the current. Then, if their roots lodge and anchor to the bottom, their branches catch all the bowlders of clay, water-logged timber, and all floating materials borne against them, and they thus form an obstruction which the water cannot undermine or remove, and it becomes the nucleus of an island.* These numerous islands are rapidly formed, and grow continually. But they are not permanent. They part the waters of the river, and deflect them, with destructive force, to the right and left, against the areas covered with wild forests or cultivated fields, to sweep them away. But, by an accumulation of drifted trees, one or the other of the new channels becomes blocked up and closed by a sand-bar. This is exposed at low water; and the seeds of the willow and cottonwood, covered with downy wings, are sown upon it thickly by the winds, and spring up rapidly to form a young forest. This catches the mud and drift borne by the flood of the next annual *rise*, and the land is

* See Note II. and Plates XIII. and XIV.

elevated by it several feet. The island is thus attached by it to the main-land. You can easily imagine that there is nothing permanent upon the banks of this part of the Mississippi. Whoever builds upon it will find himself like the "foolish man who built his house upon the sand." It may stand the thunder-gusts and northers from the Rocky Mountains, and the hurricanes and typhoons from the southwest; but there is no rock beneath his foundations to resist the descending flood, which will excavate the sand and engulf his works. An artesian boring of six hundred and thirty feet in depth, made in New Orleans in 1856, reached no rock. You can also understand why there is nothing beautiful, but much that is fearful, in the aspects of the river on this section of its course. It is a clear and lovely river after it receives its upper tributaries, and makes its descent over the falls of St. Anthony, and it maintains its mingled grandeur and beauty until it receives the turbid volume of the

The Missouri gives its character to the whole river below its junction.

Missouri below St. Louis. This tributary is the great river, and the entire stream should be called the Missouri. The Missouri bears the same relation to the Mississippi which the Madeira does to the Amazon. It seems to absorb the clearer and less turbulent Mississippi, and impresses its character upon it to its mouth. It descends in swift and boiling eddies loaded with the sands of the American Desert, borne into it by the Platte, and discolored by the oxide of iron which paints the Yellowstone. It obliterates the trans-

parent beauty of the Mississippi with its muddy tide. It receives larger accessions of iron paint from the ochreous waters of the Arkansas and Red River, and rolls this sand into the Gulf of Mexico, and discolours its surface near its northern shore, as it is carried by the eddies of the Gulf Stream from the "passes" to Florida. While standing upon a precipitous bank, or the deck of a steamer, you cannot gaze upon the Mississippi, where I first saw it, without a sensation of awe. No object can be seen an inch beneath the surface of the muddy eddies, which boil up from the depths below, and whirl by with noiseless but Titanic force. You cannot conjecture how far below the very spot on which you stand the sand strata may be undermined, and you fear that the ground may give way beneath your feet, and the treacherous waters swallow you; or, if you are on one of those great passenger-steamers, although you may be charmed by the beauty and conveniences of "the floating palace" propelled with volcanic power against the current, you cannot avoid thinking, not only of "the safety-valves" of your mighty carrier, but of the hidden snags and sawyers aimed at you from the concealed depths, and you dread the moment when one of their points may crash through the hull and sink you to the bottom. In the months of spring, when the water is colder than the air of the semi-tropical regions of its lower course, dense fogs shroud its bosom. Its current at all times of the year is generally silent, and a solemn

Sensations produced by a sight of the Mississippi.

stillness in the air is often pillowed upon its restless waters. It leaves all noisy sputtering and chiming to be made by its little children, which fall in cascades and cataracts from the Alleghany, Ozark, Cumberland, and Rocky Mountains. The roar of the great Father of Waters is only heard in the heat of summer when he bursts the levees vainly imposed to fetter his strength, and when rivers as large as the Ohio are poured through great crevasses to sweep away the habitations and plantations of whole countries. Then the roar of his waters is like that of Niagara. He roars again like Charybdis, when he undermines these levees, and receives into his capacious jaws whole acres of solid land, and all that rests upon it.* The high hills of Vicksburg, Natchez, Baton Rouge, and other portions of

Scenery of "the Bluffs,"¹¹ "the Bluff formation," which rise above the bottom to an elevation of from one hundred and fifty to three hundred feet, are very fertile, and produce abundantly tall magnolias, mingled with the large yellow poplar, or tulip-tree, called "the pride of the forests of the United States." The preponderance of the beautiful evergreen *Magnolia grandiflora* over all the other forest-growth, gives these elevated points of land a very cheerful appearance in midwinter, even where they are not crowned with cities, and the country residences of the wealthy planters, which are usually ornamented with great taste. These bluffs have been examined and correctly de-

* See Note III.

scribed by Sir Charles Lyell, as belonging to the alluvium of the great river. He supposes the whole valley to have been upheaved, and the present bottom to have been formed since that event. It is not, I think, necessary to suppose any upheaval in order to account for the elevation of this ancient bottom called "the Bluff formation," upon which the cities of Memphis, Vicksburg, and Natchez, are situated, and the escarpments of which are the high hills of Grand Gulf and Baton Rouge, Ellis's Cliffs and Port Hudson. This river-terrace contains a large area of the most fertile and beautiful uplands in the western limits of Tennessee, Mississippi, and the part of Louisiana on the left bank of the river above the Delta.* Remains of it are found in other portions of Louisiana, west of the Mississippi, among which are Sicily Island, and the elevated row of salt islands in St. Mary's Parish, situated on Atchafalaya, Côte Blanche, and Vermilion Bays. The great fertility of the alluvial soil of this elevated terrace upon which Vicksburg, and Baton Rouge, and the intervening cities, are situated, in the warm climate of 31° and 32° north latitude, and aided by the moist and balmy southeast monsoon, produces a prolific growth of indigenous semitropical vegetation. The primeval forests which yet remain are ornamented with magnolias of immense size, whose large white flowers perfume the air in spring, and whose glossy evergreen leaves give the land in winter the appearance of sum-

* See Note IV.

mer. The principal undergrowth is the beautiful evergreen, wild-peach, and holly, associated with other small trees and bushes, which retain their purple, crimson, and scarlet fruit in the winter. The marshy lands and dry bottoms are enlivened in mid-winter by the green garments with which they are robed by the bamboo-vines, palmettoes, and dense canebrakes. The magnolia grows indigenously upon the older deposits of the Mississippi and its bayous, from the parallel of 32° to the borders of the Gulf of Mexico. From latitude 30° to the sea-shore, it is associated with the lovely live-oak (*Quercus virens*), groves of which, growing spontaneously, or planted in avenues or clusters, form attractive objects in the scenery of the banks of the Lower Mississippi.* After receiving the waters of Red River, the last of its great tributaries, its vast volume loses nothing of its velocity, but the level landscapes are made less monotonous by the numerous improvements of the planters. The forests are all cleared from the margins of the river, which are elevated high above the swamps on either side, from a half mile to two miles distant, covered by a dense forest of cypress, tupelo gum, and a variety of other trees which grow in the water. But the tall cypresses give an impressive character to the scenery. Their trunks are straight and without branches to a great height. Their limbs are sent out laterally from near the top of the tree, and the

Scenery of "the
upper coast."

scenery of the banks of the Lower Missis-
sippi.*

* See Note V.

crests of these cypress-forests are not serrated with domes, cones, and pinnacles, or indented in their outlines, like those of other trees, but they form a horizontal plane, parallel with the surface of the swamps on which they grow. They are festooned with the Spanish moss. In the winter, when stripped of their foliage, and draped with the pendent masses of this gray moss, they present a dismal, funereal aspect to the stranger, who cannot look upon them without thinking of disease and death, and of all that is suggested to the mind by "the sable drapery of the tomb." But such gloomy reflections are dispelled by the objects which attract the sight upon the cleared and cultivated shores as we approach the great city of New Orleans. The mansions of the planters are often constructed with a regard not only to comfort and convenience, but display some architectural taste. They are generally built in the French or Spanish style, with one- or two-storied pillared verandas surrounding them to admit the sea-breeze, and exclude the heat of the sun; and they are embowered amid live-oaks, magnolias, cedars, and exotic evergreens, well-cultivated gardens, which produce most of the vegetables of the temperate zones in the winter as well as in the summer, and orchards of Japan plums, oranges, and other varieties of citric fruits, as well as grapes, peaches, pears, and prunes. The soil is fertile beyond conception. Its capacity for the production of varieties of fruits, vegetables, and ornamental plants, has

never been fully tested. The rich alluvium, cultivated, is devoted chiefly to making sugar; and the large establishments of the planters, with their residences, great sugar-mills, refineries, and their necessary appurtenances of shops, stables, warehouses, and the quarters of the numerous laborers arranged in streets and squares, give these spots, continually in sight, the appearance of towns and villages. Here the river is enlivened by the continual passing of steamers, and every variety of flat-boats and barges, interchanging the productions of the great valley with those of all maritime and commercial nations.

Below New Orleans the scenery presented by the shores of the river is greatly improved, and much of it is tropical in its character. This part of the Delta, called the *lower coast*, has been very recently formed by the deposits of the river upon the ancient Delta, and the bed of the Gulf of Mexico, the shore of which once extended far above New Orleans. It is a narrow strip of land separating the waters of the Gulf of Mexico, which now approach it under the names of Lake Borgne and Barataria Bay, and various other bodies of water. It is one hundred and ten miles from New Orleans to the mouth of the river, the surface of which at the city is elevated at high

Scenery of the
lower coast.

water about fifteen feet, and at low water only five feet above the sea-level. Numerous bayous connect it with the lakes and bays projected from the Gulf. With the exception of a few low ridges of land upon these bayous, the only por-

tions of the whole area sufficiently elevated for the cultivation of cotton, sugar, corn, vegetables, and fruits, lie upon the banks. At variable distances, from a half mile to a mile and a half, marshes covered with cypress-forests, or high reeds and palmettoes, or tall grass, flags, mangroves, and myrtles, separate the cultivated fields from the water of the ocean. As the river projects into the Gulf, the land narrows until it terminates in low, marshy points, covered with reeds and rank water-grass and rushes. The forest-trees which grow upon dry land, and also the cypress-trees and others which occupy the swamps, gradually disappear, until there is nothing to obstruct the view of the water of the Gulf and its bays. The whole of this narrow projection of the Delta which borders the river is densely populated and highly cultivated by a greater variety of races of men than can be found anywhere else on this continent who are not congregated in cities. The large sugar-plantations, occupying sometimes several miles of the river-banks, are owned Variety of races. by wealthy natives of England, Scotland, France, and of all the older Southern and Northern States, or by creoles born upon the lands which they inherited from their French or Spanish ancestors. The residences of the wealthy planters are often beautifully ornamented. Their yards are shaded with large pecan-trees, live-oaks, and other varieties of native growth, mingled with others imported. Hedges of ever-green roses, and sometimes of the sour-orange,

whose beautiful golden fruit hangs upon the tree all the winter, and the Japan plum, which never withers, and whose prolific and delicious clusters ripen in February and March, with the orchards of sweet-oranges and lemons of every variety, and the broad-

Tropical scenery. leafed bananas, give these abodes a very tropical aspect. The houses of many of

the descendants of the original emigrants from Spain, France, and Italy, are built in some places for miles close to each other; and a continuous orchard of orange-trees, many of them thirty feet high, and forty or fifty years old, partially conceals these primitive abodes from the view of the only public roads they have, and which run with the protecting levees and telegraph-wires directly upon the banks of the river. Some of them are thatched with the leaves of the palmetto, and have growing about them citrons, shaddocks, bananas, and fig-trees, and there is but little about the habitations, or the swarthy-skinned inhabitants, different from the aspects of human life in many places of the torrid zone. They are engaged in fishing and hunting, and raising rice and oranges for the New Orleans market. The surface of the river is higher than their abodes and fields, and you can look down upon them, and over all the flat country, from the deck of a steamboat. The equatorial current, which flows against all this lower coast, having a temperature of upward of 70°, warms it in winter; while the temperature of the water of the river never falls below 50° in the coldest weather. The moisture and

richness of the soil, aided by this mild temperature, make this last-formed part of the earth the most productive. In some years, when the seasons are favorable, as much as three hogheads of sugar, or 3,600 lbs., are made to the acre, which is a product equal to \$360. I have known 2,200 lbs. of rice made upon an acre of this land, and a single hand can cultivate ten acres. As much as \$7,000 have been made by the sale of the oranges from an acre and a half. The monsoon prevents the heat from being oppressive, and the river aids in cooling the atmosphere in the summer. It retains much of the coldness it brings with it from its mountain-sources. The only cold weather felt in Louisiana, Texas, and Mississippi, comes from the northwest, and is caused by what are called "the northers." They do not blow from the north upon these States; but they descend from the northwest, and are produced by the condensation of the air on the snow-covered range of the Rocky Mountains, extending from New Mexico to Alaska. They blow very regularly for three days and nights in succession, whenever they occur between the 1st of November and the last of March, and are the most intensely cold in midwinter, when they sometimes, in New Orleans, reduce the temperature to 15° above zero. There is no regularity in their occurrence. Some winters pass away with only one or two, giving the Gulf States only

Productiveness
of the soil.

Mildness of the
climate.

Wintry weather
made only by
the northers.

The cause of the
northers.

three or six days of freezing weather. I have known only one winter in the last thirty years to elapse without any. Other years were visited by three, six, and nine of these Rocky-Mountain blasts, making nine, eighteen, and twenty-seven cold days, which was the largest number in the same period. In some

The advantages
afforded by the
northers.

respects they are positive advantages. They give these Southern States all the weather sufficiently cold to enable the planters to salt and pack their meat. When they come early in

Their disastrous
effects.

October or late in April, their effects are very disastrous. They wither all vegetation, and destroy the crops. They combine with the

How they aid
the monsoons in
causing the ty-
phoons and
whirlwinds.

southeast monsoon to form the terrific typhoons which sweep the Gulf of Mexico and its shores, and the Atlantic Ocean

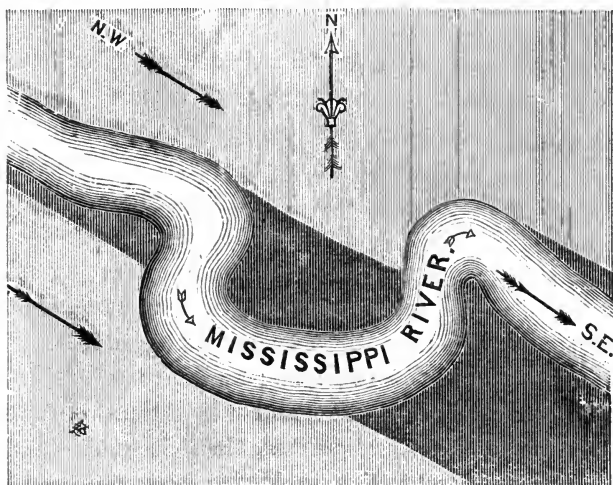
along the track of the Gulf Stream. When these northers blow upon the Delta, they wither the cane, orange-flowers, and all tender plants upon the lower coast not protected by the river. I have mentioned that its water in the winter is comparatively warm; and I have never found it lower than 50 or 60°, below New Orleans. The air in contact with it is reduced or elevated to the same temperature. What may be termed the warm "breath of the river," is borne to the southeast by

The protection
afforded by the
river to vegeta-
tion on its banks
to the leeward
of the norther.

the northwest wind, and gives the plantations, orchards, and gardens on both banks, which are situated to the southeast of the river, or to the *leeward* of the norther, a frost-

less climate. Not a leaf nor a flower is blighted, and the verdure of spring is perpetual in all these sheltered curves of the river, as it pursues its rapid course on its serpentine path from New Orleans to "the passes."

PLATE VIII.



The dark-shaded parts of the plate show the land protected from the *northers*, or freezing northwest winds from the Rocky Mountains, by the warmth of the river-water. The light shades show their blighting effects upon vegetation where they are not warmed by passing over the river.

The most of this grand and beautiful region, made by recent deposits of the river, is included in the parish of Plaquemines. On account of its great fertility, and the enormous crops of sugar, rice, cotton, and tropical fruit, and the abundance of vegetables, fish, poultry, game, and wild-fowl, as well as

the domestic animals it produces, it is called "the
The Empire
 Parish of Lou-
 isiana. Empire Parish" of Louisiana. It would

be the most desirable of human abodes but
 for a number of evils which infest it, and which are
The evils which
 infest it. sufficient to "unparadise" any earthly

Eden. The hurricanes and cyclones, the
 malaria, the mosquitoes, deer-flies, and sand-gnats,
 acting successively, or in concert, are perpetual an-
 noyances, and often fearful calamities. You have,

doubtless, read many descriptions of the whirling
The typhoons,
 or cyclones. storms which occur most frequently in
 those parts of the globe where the equato-
 rial currents of the oceans are found. They are most

prevalent in the Pacific, where the great *Kuro-siwo*,
Where the ty-
 phoons prevail. or Black Current, flows from the equator,
 and bears its heated waters toward the

northwestern shores of America, along the eastern
 coasts of the islands of Japan ; and in the Caribbean
 Sea, the Gulf of Mexico, and the Atlantic, where
 they follow the course of the Gulf Stream. They
 are also very destructive in Madagascar, and the isl-
 ands of Bourbon and Mauritius, in the track of the
 Mozambique current of the Indian Ocean. Light
 winds in Texas, Louisiana, and Mississippi, veer oc-
 casionally from between all the cardinal points ; but
 the prevailing wind in summer and winter is a south-

easterly monsoon, which comes loaded
How the snow
 of the Rocky
 Mountains is
 formed. with moisture from the tropical waters
 of the Atlantic, the Caribbean, and Mexi-
 can Gulf, and deposits nearly all the snow which

falls upon the Rocky Mountains. In Texas this sea-breeze blows strongly day and night continually, the year round, only interrupted a few days in each of the four seasons. Whenever this balmy and delightful breeze blows for a time, with more than usual force, it deposits an unusual amount of snow upon the Rocky Mountains, which causes a great condensation of the air about its crests. In winter this condensed air, or some other aerial obstruction, stops the course of the monsoon, which is succeeded by a calm. The sun, acting upon the semitropical plains of this region, rarefies the atmosphere. The barometer falls. The air is thin. A suffocating calm is the prognostic and precursor of the norther. The condensed Rocky-Mountain air-bank expands, and, with clouds, lightning, hail, and rain, or in a clear and cutting cold blast, it pours down suddenly from the northwest to fill the vacuum, or to restore the equilibrium of the atmosphere. It presses back the monsoon which meets it from the southeast. A terrible struggle of the winds ensues: not, as you have probably read, between the southeastern and northeastern trade-winds—for, on all the Texan coast, during observations made for more than thirty years, I have found no *northeast* trade-wind—but between the southeast gale and the norther. A typhoon is the result of the encounter, and these destructive storms, when they are thus produced

The only monsoon of Louisiana and Texas.

The birth of the typhoon.

Prognostic of the norther.

A scientific error.

There is no *northeast* trade-wind on the coast of Louisiana and Texas.

on the Gulf, whirl away toward the northeast, following the lines of least resistance, *the thin and warm air-paths* made by the Gulf Stream, or lying in its direction from southwest to northeast across the Gulf States. The great typhoons, and the lesser whirlwinds, commence at different points on the main-land, and far out at sea, generally somewhere between the island of Cuba and the peninsula of Yucatan and the Rocky Mountains; but whether they are five hundred miles in diameter, or only a

The track of their centres. few yards, their centres all move from the points where they occur toward the northeast. When the terrible cyclone occurred on the 19th of September, 1854, which destroyed entirely

The cyclone which destroyed Matagorda in 1854. How it was formed.

the city of Matagorda, and visited with destruction much of the eastern coast of Texas, and the shipping on the Gulf, I was in the interior of Texas, sixty miles from Austin, and about two hundred and twenty miles due northwest from Matagorda. A furious norther suddenly descended from the direction of Pike's, Long's, and Spanish Peaks, and blew down my tent, and, for three days and nights, including the equinox, made us all very uncomfortable. A large party of old Texan frontier people were encamped at the Lampasas Springs, then in a wilderness. We were enjoying the pleasures of buffalo and antelope hunting, and using the sulphur-water, disputing its possession with the Comanches. If you will examine the map, you will find that a line drawn from the

southeast to the northwest, and which marks precisely the track of the opposite winds, will touch Matagorda and the Lampasas Springs, and penetrate the loftiest snow-covered chain of the Rocky Mountains, crowned by the gigantic peaks I have mentioned. There was no *whirl* in the raging wind where I was, but for three days and nights it swept fiercely on a *straight line* from Long's Peak to Matagorda, where it made a vortex with the monsoon; and for the same time precisely, but commencing and ending a few hours later, it *whirled* every thing to ruin, as it moved to the northeast. Many observations like this, continued for a quarter of a century, have convinced me that the northers of Texas always aid in forming the typhoons of the Gulf of Mexico, and that all the whirlwinds of the Southwestern and Gulf States are produced by the winds from the Rocky Mountains and the southeast monsoon, which meet each other on the same air-line, whose general direction is southeast and northwest, and the tornadoes they produce move from southwest to northeast. But no matter what may be their cause, they are the most terrible scourges of the lower coast of the Mississippi. The narrow point of land which forms its trough, one hundred and ten miles from New Orleans to the Gulf, lies directly in their track; and, at intervals of ten or twelve years, they sweep over it with destructive force, and inflict damages upon the inhabitants which it requires many years of industry and economy to repair. A description of

one of these great storms, which occurred on the 10th of August, 1860, as it was observed at one point sixty miles below New Orleans, will give you a general idea of them all. The levees broken; the plantations injured by being inundated by the salt-water of the sea; houses and fences destroyed; orchards blown down and washed away, or killed by the salt-water; horses, cattle, sheep, hogs, and poultry, drowned; and individuals and whole families engulfed by the mingled waters of the Mississippi and the Gulf, make some of the items of the last of these terrible visitations, of which the inhabitants speak with dread, and from the effects of which many of them are now suffering.

The great typhoon of 1860.

Elmwood is situated, like all the other residences of the lower coast, upon the higher part of the alluvium, with space between the house and river for a shaded yard, a road, and an embankment to protect it from the high water. A fine orange-orchard and garden, a large barn, stables, quarters for the hands, sixty head of cattle, a large flock of sheep, a fine herd of hogs, an abundance of poultry, and all the appurtenances of a well-managed and thrifty rice-farm, belonged to the owner. The vortex of the storm slowly approached it from the southwest; and wind, rain, and terrific lightning, with mingled might for three days and nights, beat upon it. The wind, whirling from right to left, or from the south by the east to the north, forced the waters of the Gulf into

Description of the storm at Elmwood, the plantation of Mr. Charles J. Cannon.

Lakes Pontchartrain, Borgne, and all the bays and inlets, and blew the surface of the Mississippi, a mile wide, up-stream. The ocean-water soon encroached upon the marsh between the Gulf and the plantation, and gradually rose against what is called "the back levee," constructed to protect it against the stormy waves of the sea. At length the great breakers rolled over it and swept it away. The billows flowed over the plantation, floating off the fences and all the domestic animals of every kind. The angry waters, covered with drift-wood, upon which the wild beasts and reptiles of the swamps had taken refuge, rushed into the yard and against the dwelling. Trees and floating wrecks of out-houses, mingled with the struggling horses and domestic animals vainly battling with the storm for their lives, added to the horrors of the scene. As the water rose and pressed against the lower floors of the houses, to prevent them from floating away with their families, some of the planters cut large holes through the flooring, and opened the lower doors and windows to admit the waves and add their weight to prevent them from being lifted from their foundations. The wild-cats, raccoons, and, in some instances, panthers and dangerous reptiles, forsook the floating drift-wood, and took refuge in the houses that withstood the tempest. One gentleman in the neighborhood of Elmwood killed three rattlesnakes that crawled into his porch. More snakes are found in this region than in any other part of the United States,

and every variety of reptile in the whole valley of the Mississippi is abundantly represented here. They hybernate in hollow logs, and take refuge upon them in the spring, when the bottoms of the tributaries are inundated, and they are floated down to the Delta, where all this wreck of the forests is stranded by the winds and waves upon the banks of its lower coast, and on the Gulf-shores about its mouths. The snakes are thus landed in this region, where, with the alligators, and other species of animals, without number, they multiply incredibly, and change into new varieties. The family of Mr. Cannon, at Elmwood, about thirty persons, including his slaves, took refuge in the upper story of his house when the lower was submerged. Heavy logs were driven by the waves with the force of *battering-rams* against the barn, stables, and out-houses, all of which were knocked down and floated away with the fences, and with every animal upon the place. A row of large fig-trees, which stood between the house and ocean-current, remained firmly rooted, and with their thick and strong branches caught the advancing trunks and heavy drift, and prevented them from being hurled against the dwelling, which was the last house left standing. Boats and sailing-vessels were useless. No ship could withstand the storm; and some of the families who attempted to escape by that mode were wrecked and drowned, and others disappeared in the tempest, and were never heard of again. The water of the river

The multitude of snakes in the lower coast, and how they came there.

and of the Gulf rose together. At length the great breakers from the Gulf rolled over the front levee, and mingled with the river; and the land was entirely buried by the stormy waters, which rolled like the uncontrolled ocean remote from any shore. On the third day of this memorable typhoon, the solitary house containing the family at Elmwood rocked and swayed to the shock of the winds and waves; and, when the last whirl of the tempest struck it with a sweep from the northwest, it seemed for a few moments that their final mortal hour had come; but the house remained upon its pillars, and the waters were driven out, by the change of the blast from the north and west, as rapidly as they had been gathered by its wings when they swept from the south and east. In a few hours the dreadful cyclone passed away to the northeast with all its majesty and awful grandeur, while a radiant rainbow glittered upon the banners of its retreating cohorts of thundering clouds. The trembling family were left alive upon the land, stripped bare of all of their property except the little gathered in a single house, but thankful to the God who had spared them that with their lives.

I consider these storms, which occur at irregular intervals, as the worst of the ills with which the lower coast is visited. But the soil is so fertile that the planters recuperate from their effects, and many of them become and remain wealthy in spite of them. A mass of logs and vegetable matter, at least three

hundred feet thick, forms the skeleton of the land ;

The skeleton of the body of the lower coast.

and they bear as large a proportion to the whole bulk of the alluvium as the bones of the human body do to the flesh. The soil contains every chemical ingredient and fertilizing

The chemical composition of the soil.

agent that can be found, separately or combined, in all the valleys of its tributaries, which bring their contributions from the Ozark, Cumberland, Alleghany, and Rocky Mountains, and from all the rich-cretaceous, magnesian, and siliceous prairies and wooded regions they irrigate. Red River and the Arkansas flow through a gypsum-field east and northeast of the Great Staked Plain of Texas.

The great gypsum field of Texas and the Indian Territory.

This has not been fully explored ; but it was traced by Prof. Shumard three hundred miles, and was found to be seventy miles wide at its narrowest part, and the layers of gypsum were everywhere fifteen feet thick. This gives the bottoms of the Colorado, Brazos, Red, and Arkansas Rivers, their marvellous fertility, and the last two streams discharge it abundantly into the Mississippi, to be mingled with the carbonates and phosphates of lime, and the charcoal of the burnt prairies, brought down by those rivers, and the Kansas, Tennessee, and Cumberland, and all the great and small affluents of the Missouri, Upper Mississippi, and Ohio. Its fertile alluvium is its mud, and all the solid matter rolled down, with its water-logged timber, upon its bottom, and heaped into *batture* by its eddies. The water itself is absolutely pure, and

holds little or nothing in solution. A chemical analysis of it, made for the Academy of Sciences in New Orleans by Dr. Riddell, proved that, when clarified of its mud, it is as pure as rain-water just fallen from a winter cloud, or that of the coldest spring formed from melted snow. The sulphates of iron and lime, and the carbonates and mineral ingredients of every kind, poured into it by a thousand streams, seem to have neutralized each other, and fallen to its bottom to enrich its soil, and left the water unalloyed. Of all the filth poured into it from the butchers' stalls and sewers of New Orleans, I do not think a particle of it could be found in its current a mile below the city. The alligators, alligator-gars, catfish, turtles, shrimps, and voracious fish and reptiles of all sizes, and more than a hundred varieties, devour it all; or it sinks to the bottom and combines with its mud. I prefer it to any other water for drinking. It is said of travellers who have tasted the water of the Nile, that no matter in what regions they may live, they always thirst for it. It is so with those who have become accustomed to drinking the Mississippi. I have often walked a mile through New Orleans, in a sultry summer's day, to enjoy an iced draught of it from the *coolers* of the steamboats lying at their landings on "the levee."

The purity of
the Mississippi
water.

Its pleasant
taste.

There is no danger in the Delta to be apprehended from earthquakes or famines. Whenever there is an earthquake at New Madrid

No earthquakes
or famines in
the Delta.

in Missouri, there is a simultaneous shock at Caracas in South America ; and Sir Charles

The *lava sea*, connecting New Madrid and Caraccas.

Lyell thinks that these points are connected by a *lava-sea*, which must under-

lie the Delta of Louisiana. But the subterranean wave of fire does not disturb it ; and there is no evidence that the lower coast has ever felt the tremor of an earthquake. This proves that the crust of the earth beneath this semifluid and almost amphibious region is very thick and stable. Every bayou teems with fish and wild-fowl. The bays are bedded with oysters. The flat prairies and marshes abound in deer, and all the varieties of game found in the Gulf States, besides herds of wild-cattle and hogs. The Malays and Chinese, and the mixed population engaged in the business of fishing and fowling, make fortunes at it. The river's surface is elevated, in the spring and summer, far above their fields. This renders them independent of rain. When they need

The lower coast is independent of rain.

water, they have only to open their ditches, and close the gates of their back levees, and let the river flood their fields. After they have covered them with water and saturated them sufficiently, they close their front water-gates, and open those next to the swamps, and the water runs off, and leaves them dry. In speaking of the evils they suffer from typhoons and whirlwinds, I ought, perhaps, to

The lightning is dangerous.

have mentioned the lightning which falls from the small summer-clouds with the ordinary showers, and which in this flat country is

very dangerous. Where there are few elevated objects, it falls upon the telegraph-poles, upon trees and houses unprotected by Franklin rods, and is even attracted by the pointed reeds, which are twelve or fifteen feet high, and cover hundreds of square miles of the uncultivated parts of the Delta. In the fall, spring, and winter, the lightnings keep these reed-brakes burning continually. I saw six fires kindled in different parts of these prairies, within an area of six square miles, by the lightning of a single small thunder-cloud which passed over it in a half hour. They usually continue burning until their course is arrested by the natural bayous or artificial canals which intersect the lower coast in all directions, and render these fierce fires harmless. They are beautiful objects at night, and illuminate every part of the horizon during the winter with the splendors of many auroras.

Next to the typhoons, the malaria is the most dangerous evil of the Delta. Every form of fever prevails in it. Yet thousands are born and live among these swamps and marshes to extreme old age. The wealthy and educated classes of the planters are generally healthy and long-lived, and the youth of both sexes are remarkable for their strength, activity, intelligence, and beauty. Refinement, hospitality, politeness, and elegance of manners, are almost universal among the creole landholders of various nationalities. It is a remarkable fact that, during

The malaria.

The longevity
of the creoles.

Their fine character.

two years, while I had charge of this whole area of one hundred and ten miles, as the only Protestant minister in it, and visited every part of it at all seasons of the year, exposed to wettings, to heat and cold, night and day, I was not confined by sickness a single day ; and, although I baptized about

A singular fact.

fifty persons in Plaquemines Parish and other parts of Louisiana, I only buried one. There was some sickness at all seasons, and several deaths from yellow fever, but I happened not to be called upon to perform the funeral service. Usually, where I have baptized fifty in what are regarded the healthiest parts of our country, I have buried from five to ten. This proves that, notwithstanding the malaria

Blood-suckers.

which infests it, the region is not very unhealthy. The greatest annoyance it suffers is from the blood-sucking insects of various kinds.

No bed-bugs in the Delta.

There are no bed-bugs or chinchies in the Delta, and I have never seen the black chigre of the West Indies and Florida ; but the small red variety is abundant. There are many varieties of mosquitoes, but three of them are almost intolerable pests. The gray variety, which is found upon every

Interesting varieties of mosquitoes.

spot of the American Continent where there are marshes which generate malaria, and which annoyed Captain Franklin even at the mouth of McKenzie's River, on the shore of the Arctic Ocean, appears in midwinter on the lower coast, and is always vigorous and voracious, except when the thermometer in a bedroom is at the freez-

ing-point; and they swarm in clouds in midsummer and fall. But they love night and darkness, and are not very troublesome in the day; and they avoid the heat of the sun. A smaller gray kind are awake, active, and blood-thirsty all day, and make reading and writing impossible without the protection of netting. They have the recommendation of biting without singing. But the worst of all the tribe is a short-winged, yellowish variety, which is averse to shade, and avoids the interior of houses, and makes its attacks in the hot sunshine and the strong sea-breeze. They light upon the clothing or naked skin, and cling fast and fearlessly to whatever they catch. They cannot be frightened by a wave of the hand, or any threat. To get rid of them, you have to *dash* them. Their long, sharp bills are slightly curved *outward*, like a sabre; and they deliberately adjust their points, throw the weight of their bodies upon them, pulling with their fore-feet, and *spade* them into the flesh, which they reach through thick woollen clothing. At some seasons of the year the ploughmen are compelled to work with thick gloves upon their hands, and veils over their faces, and to cover their mules with an armor of corn-sacks sewed together. The villanous gray mosquito infests portions of this whole continent, and it seems to be as well adapted to endure the severities of various climates as man himself. An insect which can thrive under the equator upon the banks of the Amazons, and amid the arctic snows at the mouth of the McKen-

zie, and which feasts with equal delight upon the naked negro and fur-clad Esquimaux, must have a fine appetite and a strong constitution. Even here, each one of you is familiar with the ear-piercing shriek

of joy uttered by the voracious little pest
She-cannibals.

when *she* smells the blood of an American; I say *she*, for the males never bite. It is difficult to ascertain what beneficial work these insects perform in the economy of Nature in our world, where good and evil are mixed like tares and wheat in a common field. They are certainly not an unmixed evil.

They do not feed exclusively upon *blood*,
Sugar-eaters.

although they like it. They are as fond of *sugar* as children. I have seen them so thickly clustered upon a lump of it that they made it look as if it were covered with mould. They also feed upon

some matter they find in the mud along
Mosquitoes
benefactors.

the margins of stagnant and putrescent ponds and bayous. I have found them near this fetid

water with their bills stuck in the disgusting muck, filling themselves with something which I hope was *malaria*. If malaria is a plant

of the *fungus* or *algæ* family, like the *mushroom* or *yeast*, which propagates its species by little *spores*, which fly in the air or float in the water like dust, and plant themselves in the human *lungs* or stomach, and, by growing in the blood, feeding upon its *carbon*, and acidifying it with *oxygen*, produce fevers and other diseases, as physicians suppose—if the *mosquitoes* eat these destructive little plants, and prevent

them from killing us, then they are to some extent benefactors, and they are welcome to a little of my blood, if it kills them.

It would require a separate and elaborate lecture on *entomology* to describe the deer-flies, sand-flies, and other *sanguinivorous* insects of the lower coast, which deserve the penalty imposed by the sacred law: "Whosoever sheddeth man's blood, by man shall his blood be shed." The common spotted-winged, yellow horse-fly, which in all the older States confines its attacks mostly to the ears and other parts of horses, is called there the *deer-fly*. Deer-flies. They swarm in countless multitudes, and assail men as well as beasts in the sunshine and wind. They avoid the interior of houses. The little sand-flies Sand-flies. are pigmy mosquitoes, which are the peculiar pests of the lower coast, and especially of "the passes" in midwinter. They are peculiarly offensive in the night, when they penetrate the ordinary mosquito-bar and render sleeping impossible. A netting of finer material, with smaller interstices, is required for protection against these pigmies, whose multitude supplies their want of magnitude. With this brief notice, I will dismiss the whole subject of these buzzing swarms of *she-cannibals*, the remembrance of which is very painful to me. I will call your attention to only one more of the An Apollyon animals of this region, and I select it for description, from hundreds of its genus, because it reflects some light upon our religion and ancient

myths. It is a *sting-snake*, a veritable *Apollyon*,
Sting-snakes. with a sting in its tail. I have seen

two varieties of them, neither of which
 resemble the jointed-snake, a kind of *saurophidian*,
Saurophidians. or connecting link between the lizard
 and the snake. There are many varie-

ties of this harmless reptile, each of which has the
 end of the tail armed with a pointed, horny car-
 tilage. But the two varieties of the sting snake
 which I have seen are large and dangerous reptiles,
 armed with real stings, which they thrust out from
 their sheaths, or withdraw, and with which they
 strike like the hornet or wasp. They have been
 found in Pontotoc and Coahoma Counties, Missis-
 sippi, and in Travis County, Texas. I had two of
 them in my possession in Austin, in 1852. They
 have also been found in St. Mary's Parish, Louisiana,
 and they are numerous on the banks of the Lower
 Mississippi, in Plaquemines Parish. One variety
 is a shining, brown-black reptile, about five feet
 in length and five inches in circumference when

Un enfant de fully grown, with a small head and large
diable neck. Underneath, the body is marked
 like a *backgammon-board* or *tessellated pavement*,
 with alternate squares of reddish yellow and black.
 While crawling, or lying basking undisturbed, the
 tail looks like that of most other snakes, long
 and tapering, but slightly blunted at the point;
 but when it is irritated it thrusts out a keen black
 sting, two and a half inches in length, with which it

strikes instantly, like the *sting-ray*, with great accuracy and force. The sting is sheathed like that of a bee, but it is not barbed, as the ancient artists painted the tails of the dragon and "the old serpent." But the fact that these European artists of the olden time gave the serpentine monsters of Grecian myths the appendages of stings to their tails proves that serpents of this kind must have formerly existed in the Old World, as they certainly do now in the New. Another variety is found in the Delta of Louisiana, one of which was sent by Judge McIlhenny to the Academy of Sciences of New Orleans. He resides upon Avery's Island, in St. Mary's Parish, where he discovered it, and where he has since found specimens of the black kind. It is of a golden-yellow color, banded with jet-black splashes, which give it a hideous appearance. But few can look upon this formidable reptile, five feet long and six inches in circumference, armed with a sting two and a half inches long, strong and keen as a sailor's needle, without a shuddering sensation of antipathy and dread. I described these snakes to Prof. Agassiz, in October, 1868, and he told me that he had never heard of them, except in the popular legends of the ignorant about *hoop-snakes*, which are based upon the real existence of these reptiles. They are certainly capable of inflicting a mortal wound upon man or beast, yet I have never known a single individual killed or wounded by one; and it is remarkable that, during a life of more than thirty-four

*A horrid
beauty.*

years in Mississippi, Louisiana, and Texas, where so many venomous reptiles abound, I have the positive evidence of only one person who has died, during that long period, from the sting or bite of a serpent in either of those States. He was an old gentleman by the name of Duty. He died in fifteen minutes after he was bitten by a rattlesnake, near Austin, about twenty years ago. This proves that the dangers of this region, threatened by such venomous reptiles, are much exaggerated. More persons die from the bites of mad dogs in our large Eastern cities, than are killed by all the reptiles and wild beasts of the valley of the Mississippi.

NOTES ON THE LECTURE ON THE MISSISSIPPI RIVER.

I. None of these rivers flow, like the Mississippi, along a meridian, or from the poles toward the equator. Its course is near the 110th degree longitude west from Greenwich, and the centrifugal force of the earth which elevates the ocean under the equator $13\frac{1}{2}$ miles above the *globe-level*, and where action upon the earth's surface is from the poles toward the equator, hurls it in that direction with fearful velocity. The Nile and the La Plata, nearly the same size with the Mississippi, flow *from* the equator toward the *poles*, and have their velocity *retarded* by the same cause.

II. The manner in which the river makes its own obstructions is the best guide to teach engineers how to construct theirs—not with piling and planking, but with *brush* and wattle-work, like the beavers' dams. I presented a plan for controlling water-currents, and preventing the banks of rivers

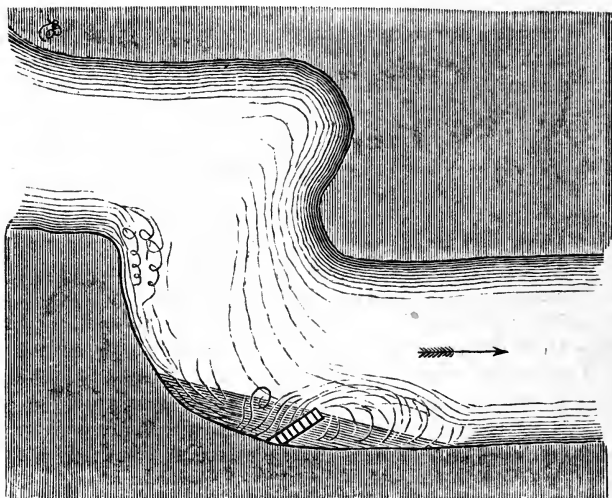
from caving, and for removing bars and other obstructions, which was adopted by the New Orleans Academy of Sciences, in January, 1868.—(See Plates XIII. and XIV.)

III. The Bonnet Carré crevasse of 1870 was a half mile wide and eighteen feet deep. The stream that poured through it was larger than the Ohio. The roar of the Bermuda crevasse could be heard eight miles.

IV. When a connection existed between Lake Michigan and the Mississippi, which assisted in draining it, a river as large as the Amazons flowed down its valley, and extended its Delta far out into the Gulf, perhaps a hundred miles beyond its present shore. As this Delta was removed by the equatorial current, its bed was lowered, while its ancient valley remained elevated to the level of what is now left of it. If it was as large as the Amazons it was six times larger than the present Mississippi, and its bed was six times deeper, and its alluvium six times thicker. The modern alluvium of the river is from one hundred to one hundred and twenty-five feet thick. The artesian auger in Canal Street, New Orleans, penetrated the ancient alluvium to the depth of nearly six times that much, or six hundred and thirty feet, where the sand and clay began to assume the condition of "stony hardness." The Amazons and Orinoco are still connected by the Cassaquiare, as the Mississippi and St. Lawrence were probably by the lakes. A cut through an embankment only sixteen feet now admits the water of Lake Michigan into the Mississippi, through the Illinois River, whose valley was made by this great ancient river. The erosion of the bed of the Detroit, Niagara, St. Clair, and other rivers, connecting the lakes to the depth of sixteen feet, caused their waters to flow through the St. Lawrence exclusively.

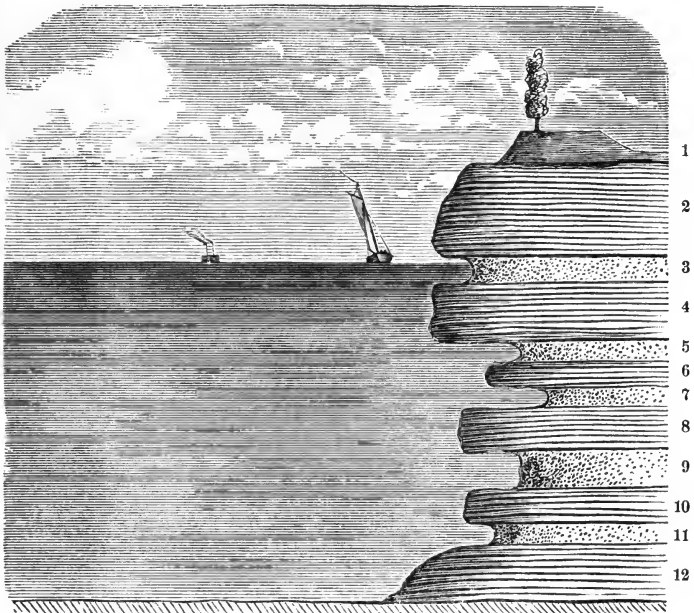
V. The term "upper coast" is applied to the banks of the river between New Orleans and Baton Rouge, and the country bordering it from New Orleans to its mouth is called the "lower coast."

PLATE IX.



A section of the Mississippi River, caving its right bank at a deflecting jetty which is forming *batture*, or alluvial deposit. To do its work properly, the jetty should have been placed higher up the river. In its present position it will form an island.

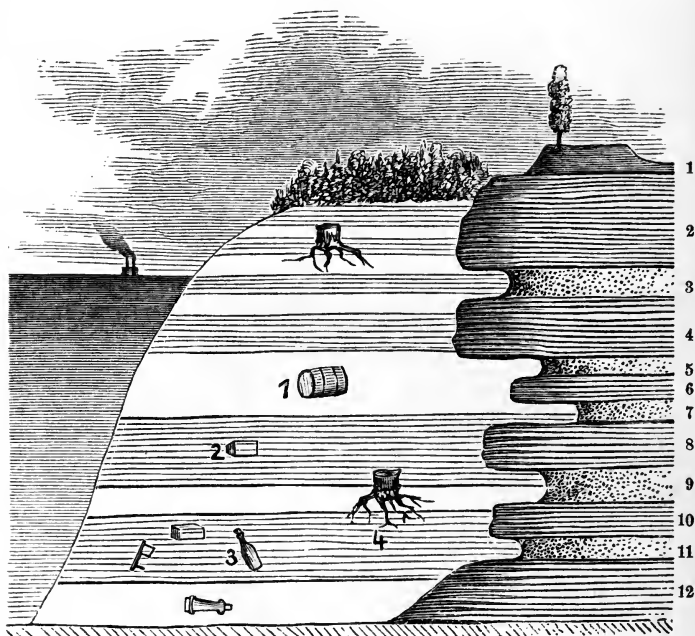
PLATE X.



1, Levee; 2, Stratified Loam; 3, Sand; 4, Clay; 5, Sand; 6, Clay; 7, Sand; 8, Clay;
9, Sand; 10, Clay; 11, Sand; 12, Clay.

A cross-section of a part of the alluvial bank of the Mississippi, composed of stratified loam of different colors, and sand. The current excavates the sand, and the unsupported clay falls into it, and is swept away.

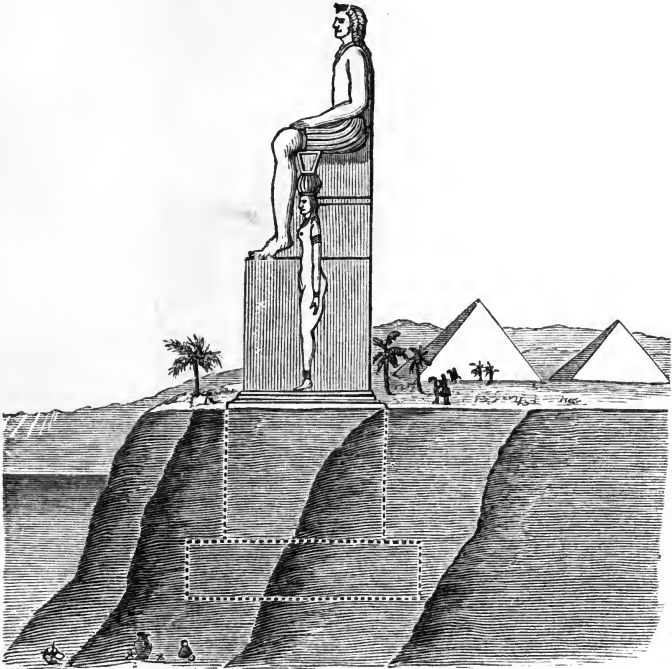
PLATE XI.



1, Levee; 2, Stratified Loam; 3, Sand; 4, Clay; 5, Sand; 6, Clay; 7, Sand;
8, Clay; 9, Sand; 10, Clay; 11, Sand; 12, Clay.

A cross-section of a stratified mass of alluvium, thirty-five feet thick, and several acres in extent, deposited against the caving bank, represented by Plates IX. and X., and the whole formed in one year, including barrels, boxes, stumps, and other drift, embedded one above another. The whole formation is stratified with layers of various colors, given them by the floods of Red River, the Kansas, and other streams, tinting the water of the Mississippi, during the different seasons, with their deposits.

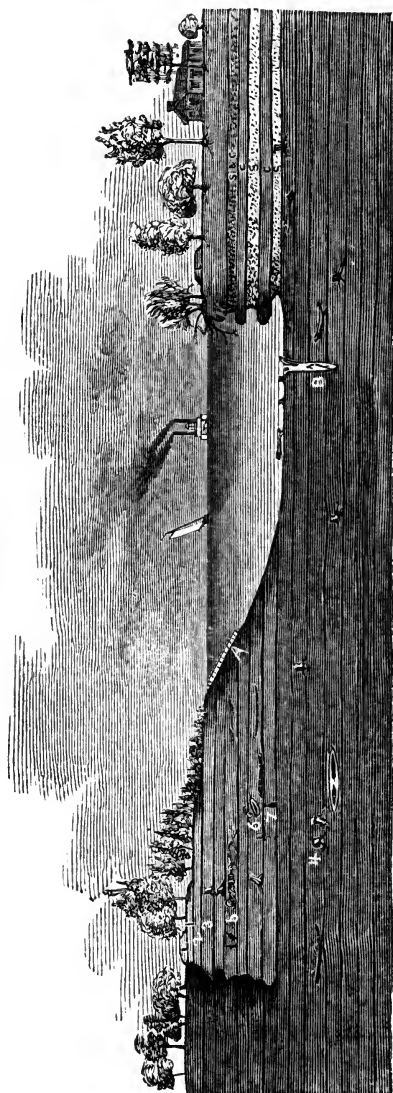
PLATE XII.



Monument of one of the Pharaohs of Egypt, whose Pedestal is buried nine feet in the Alluvium of the River Nile.

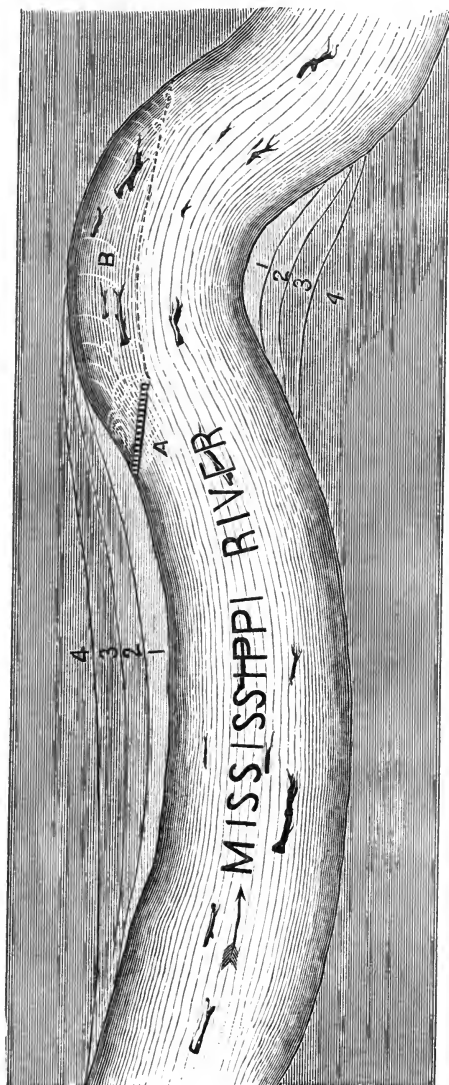
This plate is intended to show the similarity of the deposits of the Nile and the Mississippi, and the mistake made by antiquarians in determining the age of the remains of human art found in their alluvium. They suppose that each layer of the deposit represents an annual inundation of the rivers. Plate XI. shows that many thousands of these layers may be deposited in one year by a single flood. The whole alluvium of the Nile is a little more than thirty feet thick. The different colors of the layers are caused by the various tints of the Tacazzé, Blue Nile, Bahar el Abiad, and other affluents.

PLATE XIII.



Cross-section of the Mississippi River in the Delta.

PLATE XIV.



Section of the Mississippi River, showing the Annual Changes of its Channel and its Deposits for Four Years; and the Proper Position of a Jetty of Lattice-work to protect its Banks from caving, at B.

The object of this diagram (XIII.) is to show the action of the Mississippi River in making and changing its alluvium. The darker-shaded, parallel lines on the left, and below the bed of the river, represent the older deposits, which are found filled with stumps and logs one above another, with remains of boats, boxes, and bones of men and the lower animals. The artesian auger has brought up wood unpetrified, and but little changed from common seasoned timber, from a depth of 325 feet. The mass of stratified alluvium on p. 328, marked 1, 2, 3, 4, 5, 6, 7, shows an enormous deposit 100 feet thick, and many acres in area, made in four years by a deflecting dam used for illustration, and marked on Plate XIII., A. At fig. 5 is marked the skeleton of a man lying 50 feet below the levee, and beneath two tiers of stumps, *buried only four years* by the river. But if the rings of the stumps are counted, and the many layers of deposit above his remains are numbered, and each one supposed to denote an inundation of the river, a geologist or Egyptologist, unacquainted with its peculiarities, might make the mistake of supposing that these human remains had been entombed many thousands of years.

Fig. 4, on the left, marks the position of a modern steamboat-yawl beneath two stumps, and far below the present bed of the river at that point. Letter B indicates the section of a part of the crater of an ancient mud-lump from which the sand and clay have been removed by the bottom-current of the river, flowing with a velocity of four miles an hour, and filling it with water-logged timber and other materials. General Beauregard, in sounding the river below New Orleans, in about 100 feet water, found one of these holes 240 feet deep. As the channel shifts, and leaves these cavities in eddies, they are filled with its deposits. Letter A marks the position of a jetty properly placed in Plate XIV., for deflecting the river, such as must have been used by Menes for changing the bed of the Nile when he built Memphis, and which is mentioned by Herodotus. The ancient engineers of Egypt understood the art of controlling the current of that great river, which they regulated as they pleased. The same means will be found equally practicable in managing the Mississippi. The right side of the plate, marked S C, shows a common section of the older alluvium of the river, composed of alternate layers of sand and clay, leveed and cul-

tivated, but in process of destruction. The current washes away the sand, and the unsupported clay falls into the deep water with the levee, houses, and all things upon the surface. This work of ruin will continue until the engineers who build the levees are required to construct deflecting dams of lattice-work for their protection. These should be extended at a proper angle from points *above* the caving banks, and not *at the points of caving*, from the shores into the deep water, as marked at A, Pl. XIV. A corresponding jetty should be constructed at the upper ends of the lines 1 or 2, on the opposite or right bank of the river, to prevent the deflected current from A, eroding the shore at fig. 1. No piling or planking, nor dams made with smooth surfaces, will answer for deflecting and protecting jetties on banks and bottoms where there is no rock. They reflect the current downward upon the friable sand which is removed, and the unsupported jetties are washed away. The materials must be of crib or wattled work, like the brush-dams of the beaver, or on the principle of Manico's patented caissons, which will not reflect water, but form an obstruction which makes a deposit. The plan for controlling water-currents which I gave the New Orleans Academy of Sciences, and which was adopted by it in January, 1868, explains more fully the proper method for protecting levees, and for utilizing the current of the Mississippi in removing bars and making land.

GLOSSARY AND INDEX.

A.

ABBEVILLE and Amiens, cities of France; remains of ancient men found there, 66.

ABRAHAM, father of multitudes, or nations, a descendant of Shem.

ABYSSINIA, in Africa, the source of the Sacred or Blue Nile, discovered by Sir James Bruce in 1775, 29; monarchs of, the descendants of Solomon and the Queen of Sheba, 30; chronicles of, brought to England in 1781, and by Major Cornwallis Harris in 1842, 29.

ABYSSINIANS not negroes; they are a mixed race, generally yellow and long-haired; not pagans, but Christians, 31.

ADAM, *my man, human, red, earthy, breath*; sons and daughters born to him after the birth of Seth, whose names are unknown, 15, 76; how all animals were brought to him and named by him, 118; his knowledge imparted by inspiration, 120.

ADAMS, or Alexander Smith, of Pitcairn's Island; his remarkable history, 208.

ADRIAN, or Hadrianus, a Roman emperor who destroyed Jerusalem, and built upon it *Ælia Capitolina*, died A. D. 138, 158.

ÆLIAN, or Claudius *Ælianus*, a Roman historian, about A. D. 170, 140; his account of America, quoted from Theopompus of Chios B. C. 354, 140.

AFGHANS, inhabitants of Afghanistan, in Eastern Asia, the descendants of the ten tribes of Israel. Their name, Ben-i-Israel, 157.

AFRICA, *the western country*, circumnavigated by an Egyptian expedition sent out by Necho II., 132.

AFRICA circumnavigated by Hanno the Carthaginian, 134; Vasco de Gama in 1498, 166; Covilhan's letter to John I., King of Portugal, informing him how it could be circumnavigated, 166.

- AGASSIZ, Prof. Louis. His anatomical argument against the unity of the races examined, 90; opposed to the amalgamation of whites and blacks, 198.
- AGES of stone, bronze, and iron, reversed by the aborigines of America, 71.
- ALBINOS, *white negroes*; men and inferior animals whitened by cold; the cause of albinism discussed, 112.
- ANTIPODES, St. Virgil's heresy in regard to them, 141.
- APE, an animal belonging to the class of Mammalia, or beasts with teats, called *Quadrumana*, or four-handed; supposed by Dr. Adam Clarke to have been the *nachash*, or *chatterer*, translated *serpent*, which tempted Eve, 29.
- APPLE, a fruit belonging to the class of plants *Rosacæa*, or of the family of roses; all the varieties of apples supposed to be descended from the wild-crab, 107.
- ARABIANS, a mixed race, called anciently by various names—Cushites, *Æthiopians*, Sabæans, Idumeans, Hagarenes, and Ismaelites; the descendants of Abraham and Hagar and Keturah, of Esau and his wives, and Lot and his daughters, mixed with all the ancient and modern polygamous nations of Africa and Southern Asia. Their knowledge of the compass and astrolabe; their maps of the Cape of Good Hope, and their high civilization in the dark ages, 166.
- ARYAN, a Sanscrit word from *Ar—to plough*, *ploughmen*, as distinguished from *Tura*, or *Turanian—horsemen*, or *nomads*, from *tur*, to move swiftly. Aryan is a term applied to all the nations who speak languages derived mainly from the Sanscrit, or ancient Hindoo, as the Greek, Latin, German, Gothic, and English, and their kindred tongues. *Turanian* languages are those derived from the monosyllabic tongues of the ancestors of the Chinese, Tartars, Turks, and most of the branches of the yellow race of Cuvier.
- ATLANTIC, the word derived from the ancient Tyrian and Mexican *atl*, water, or *Allan*, a city of Mexico, 138.
- ATLANTIS, the Central American kingdom of Xibalba, 137; accounts of it by the ancient Greek and Roman authors, 137.
- AVERY Island, or Petite Anse, in Louisiana, 68, 81.

B.

- BARBARIANS, *Bar-bars*, people whose names have *Bar* prefixed to them, signifying *son of*, 162.

- BASQUES**, the inhabitants of Biscay, in Spain; their ancient intercourse with America, 141.
- BEN-I-ISRAEL**, *children of Israel*, the name of the Afghans, 157.
- BIBLE**, the *Book*; God's revelation to mankind; not a book of natural science.
- BILL**, an account of Wild Bill, of Natchez, 218.
- BLACKBERRY**, a fruit common in England in the time of Shakespeare; white blackberries, 108.
- BLIGH**, Captain, and afterward Admiral, of the British Navy; an account of his remarkable voyage, 209.
- BRUCE**, Sir James, a Scotch physician and celebrated traveller, who discovered the sources of the Blue Nile near the village of Geesh, in Abyssinia.
- BURNES**, Lieutenant, and afterward Colonel and Sir Alexander, of the British Army; he published two interesting books of travels in Northwestern India, Cabul, and Tartary, and was massacred in the Afghan War; his account of the Afghans, 157.

C.

- CABBAGE**, described by Dr. Adam Clarke, fifteen feet high; all plants of the cabbage-kind domesticated varieties of the charlock, 107.
- CAIN**, *possession*, or *possessed*; oldest son of Adam; married his sister, 81.
- CAMEL**, never found wild, 103.
- CANAAN**, *merchant*, *trader*, son of Ham; his curse, explained in the lecture "How America was peopled," 260.
- CANAANITES**, *merchants*, the ancient Phœnicians of the Northeastern coast of the Mediterranean Sea, near Tyre and Sidon; the ancestors of the Carthaginians.
- CANOE**, Welsh tub-canoes used by the Mandan Indians, 144.
- CANOES** of the Polynesians; "vessels of bulrushes" described, 134.
- CAUCASIAN**, *Khogh*, Indo-Germanic word for mountain, and *Asi*, Asiatics, inhabitants of the mountains of Asia, between the Black and Caspian Seas; a mixture of ancient races, 194.
- CHAMELEON**, a lizard which changes its color to suit that of objects near it; the property of the chameleon is possessed by various animals, and to some extent by mankind, 114.
- CHEMICAL** changes of soils, the cause of the extinction of plants and animals, 95.

- CHEROKEE, a corruption of *Chelokee*, 197.
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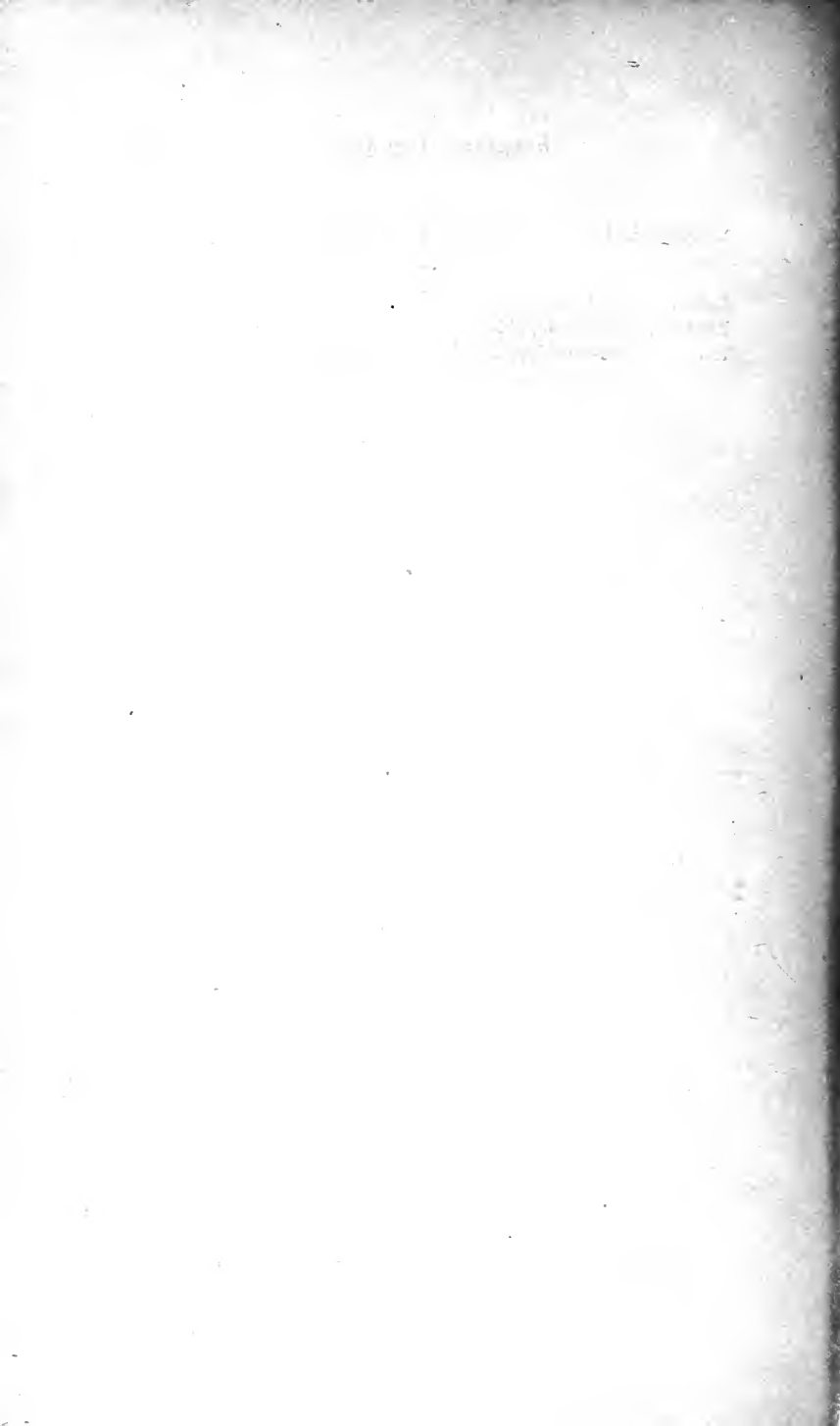
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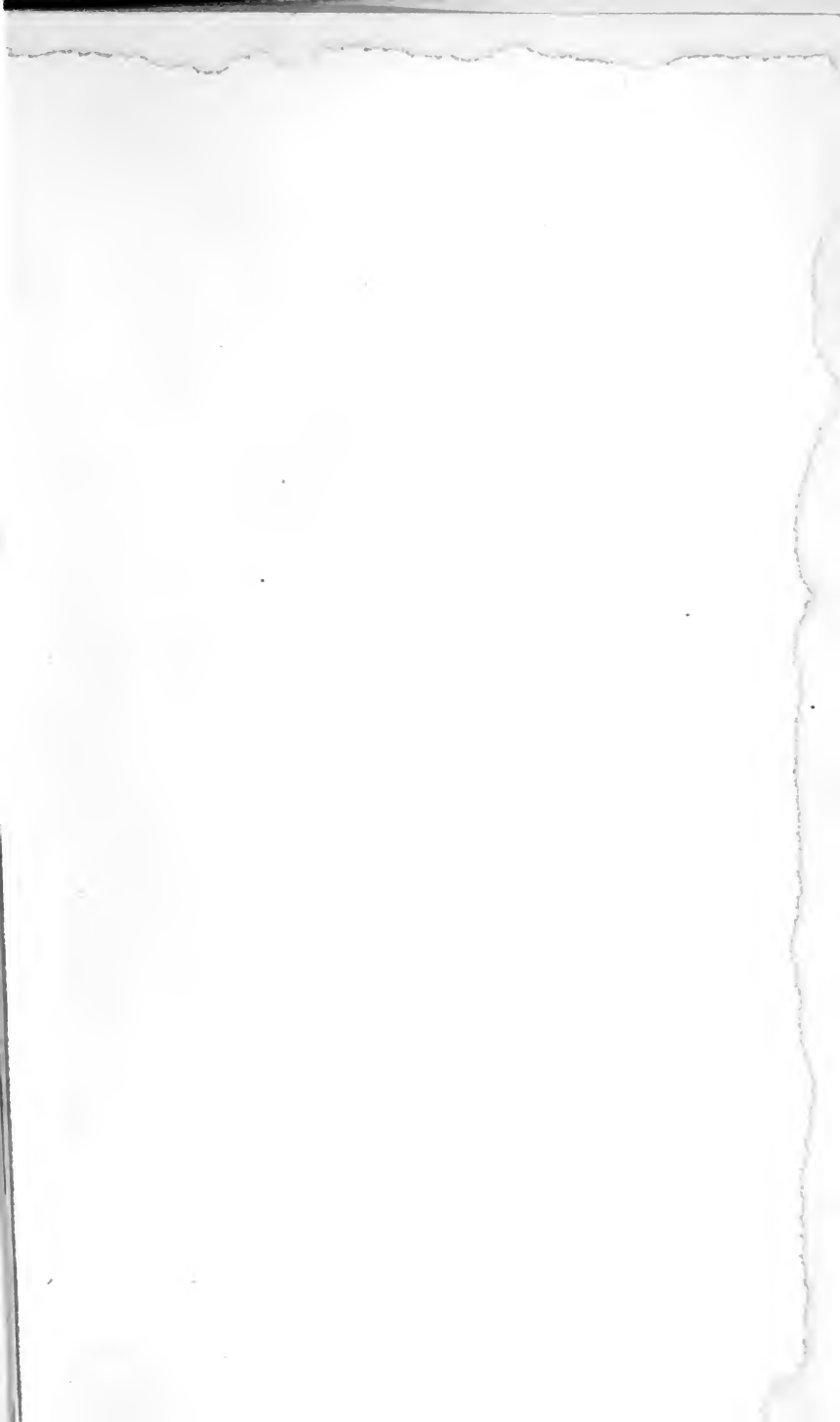
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